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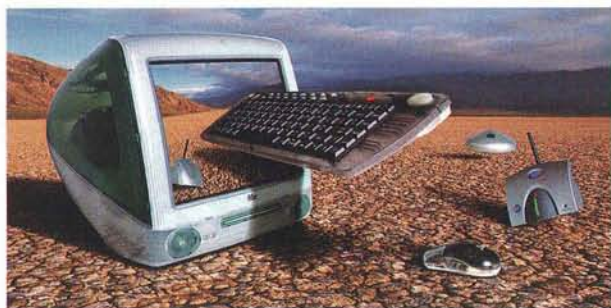
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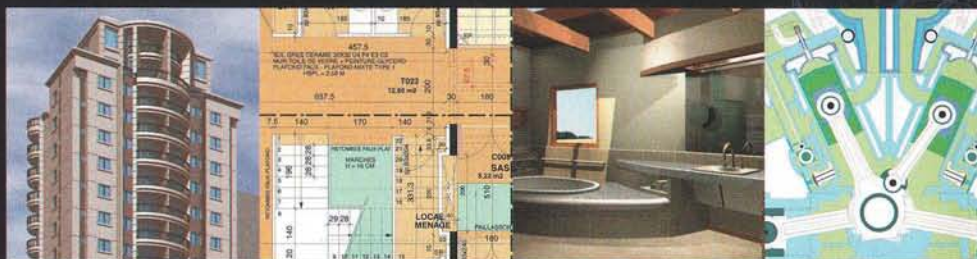


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We in the computer industry like to plan for the future by consulting the history books—not only because history is destined to repeat itself, but also because it will undoubtedly do so with clockwork precision.

For example, we all agree that this year's transition to Mac OS X will be as big a change as Apple has ever seen. But which previous transition will the conversion to Mac OS X most resemble? Some liken it to Apple's move from Motorola's 680X0 processor family to the PowerPC chip, because there will be software inside OS X that will allow your old software to continue to run (albeit at significantly lower performance levels than new "native" applications). Others compare the change to the one that happened between the Apple II and the Mac, because in fact we're talking about a fundamental change in both the operating system and user experience (although in this case, the hardware isn't changing, just the software).

I agree with the adage that those who fail to study history are doomed to repeat it. Yet when it comes to Mac OS X, I find all of these historical examples lacking. I believe firmly that this transition will not be driven initially by the professionals, the experts, or even necessarily by hardcore Mac users. No, I believe that novices will initially drive the adoption of a modern Mac OS.

The Meek Shall Inherit the Mac

Since I'm discussing different classes of users, I should probably get my definitions straight up front. When I say "novices," I refer to users who are likely struggling with the idiosyncrasies of an antiquated OS. Mac OS, for all its vaunted ease of use, is hard for first-time computer users to understand. It's also hard to diagnose and repair when it crashes, which it does an inordinate amount of the time.

ANDREW GORE

Test Cases

IN THE TRANSITION
TO MAC OS X,
NOVICES WILL LEAD
THE WAY



I spend an enormous amount of time on the phone helping friends through their Mac travails. For example, there's the one who has been using a Mac since the mid-1980s but doesn't have time to stay current on the latest ways to get his PowerBook off its knees. And there's the one who had never touched a computer before I put an iMac in her living room: she still has trouble getting her head around the idea that computing is not a linear experience.

I once spent two hours on the phone helping the latter friend click and drag. The conversation went like this:

Me: Jenny, put the pointer so it's over the icon. OK?

Jenny: OK.

Me: Now, click and hold the mouse button down.

Jenny: OK.

Me: Did the icon turn black?

Jenny: Yes.

Me: OK. Now, don't let up on the mouse button, and move the mouse.

Jenny: OK.

Me: Did the icon move?

Jenny: No.

Ah, the joys of phone support. To this day, I don't know if the problem was with her Mac or our communication. She's a smart person, so I'm leaning toward the Mac. Certainly, this wouldn't be the first time I've seen a Mac do something bizarre at the hands of a novice.

Expert users don't experience these kinds of problems. Why? Because, by definition, expert users have invested a tremendous amount of time figuring out how to get around (or even take advantage of) Mac OS's more neurotic behavior.

Expert users are going to be the last people to risk the unexplored wilderness of a new OS. They've got too big an investment in processes, workflows, troubleshooting,

continues

scripts, applications, and that special intuition that comes only from a decade of being in their studies at 3:00 a.m. and getting a cascading Type 3 error message that brings their entire project down. It's moments like these that make very clear how truly alone we Mac users are in the world, and that truly test our ingenuity and fortitude.

Yes, experts will go to Mac OS X—but only when they judge that leaving behind the frustrations of the devil they know is worth the risks of the devil they don't know. And those who do try out Mac OS X will probably do it on a second hard drive so that they can always return to Mac OS 9.1 when the going gets rough.

Three Easy Pieces

You can distill it down to this: Novice users have nothing to lose. They also generally stick with whatever operating system comes on their hard drive—and pretty soon Mac OS X will be on the hard drives of all new Mac systems. You can easily see how new users will be the first large section of the Mac community to deal with Mac OS X on a large scale.

This will be a good thing for three reasons.

First, as I said previously, novice users are the least-equipped to deal with a computer that crashes a lot. Therefore, they are the ones likeliest to benefit from a more stable, modern operating system. Mac OS X doesn't crash as much, and in the rare event that an application does crash, it doesn't go tearing through the rest of the OS like a crazed weasel locked in a china cabinet. That means fewer crashes and fewer two-hour conversations on the Zen of Clicking and Dragging.

Second, the whole Finder-desktop metaphor is baffling to new

users. An interface that they seem to understand almost immediately is the browser. Mac OS X's file browser should be a boon to beginners, and it's certainly better thought-out than the Windows Web-browser interface.

Third, there's Cocoa, Mac OS X's framework-based development environment. Cocoa shaves hundreds of hours off of the effort required to take applications from one platform to another. Case in point: Developing the Mac OS X version of Star Trek Voyager: Elite Force took weeks, versus months for the Mac OS 9 version. The only difference was the use of Cocoa on Mac OS X. Cocoa looks to be a major boon for game developers wanting to offer their PC games on Mac OS X. And a slew of Mac OS X-only games, combined with other advantages of a modern OS for gaming, should drive enthusiasts and home users over to OS X rather quickly.

In the end, we're all going to be using OS X, unless we're planning on abandoning the Mac platform altogether. But whether the transition to the OS X goes quickly and relatively painlessly will depend on how easy Apple and the rest of the Mac community make it for novices and enthusiasts to jump aboard. A protracted transition will be good for no one.

There's no way to tell just how everything will turn out, but one way or another, the Mac OS X transition is definitely history in the making. **m**

ANDREW GORE is *Macworld's* editor in chief. To comment on this column and interact with Gore, visit Macworld.com and type **Vision Thing** in the Find It Fast search box.

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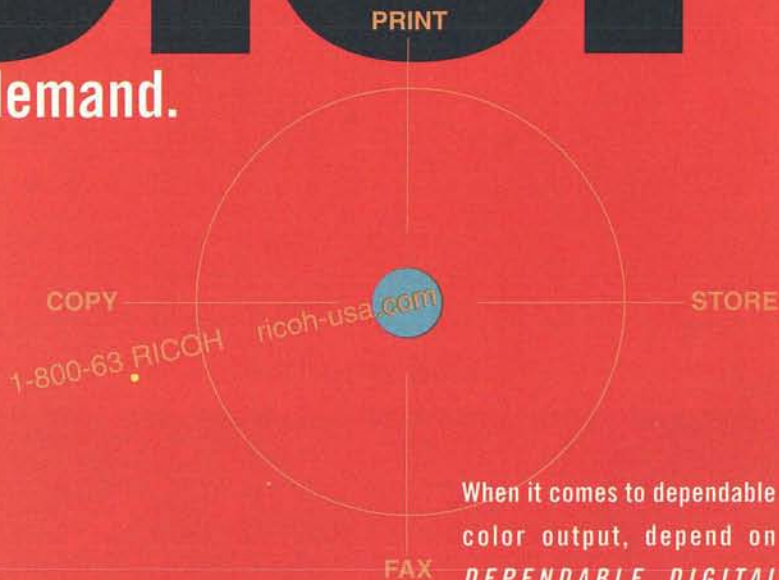
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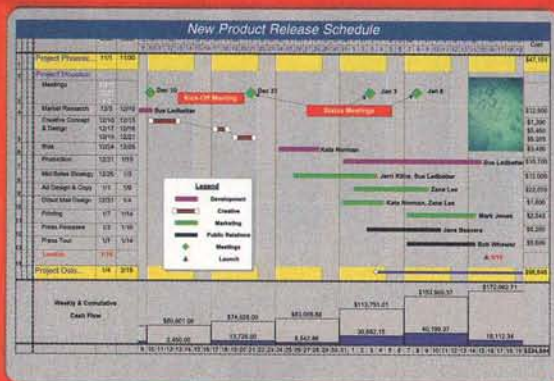
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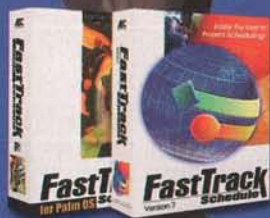
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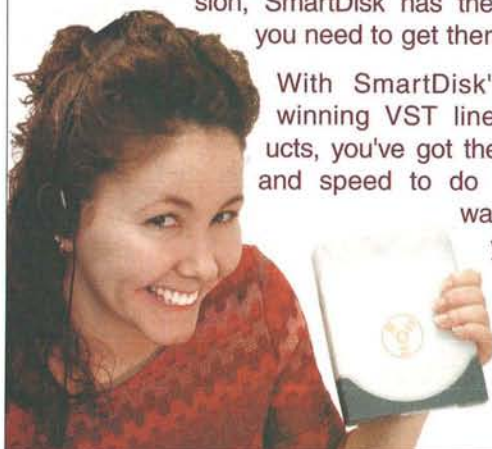
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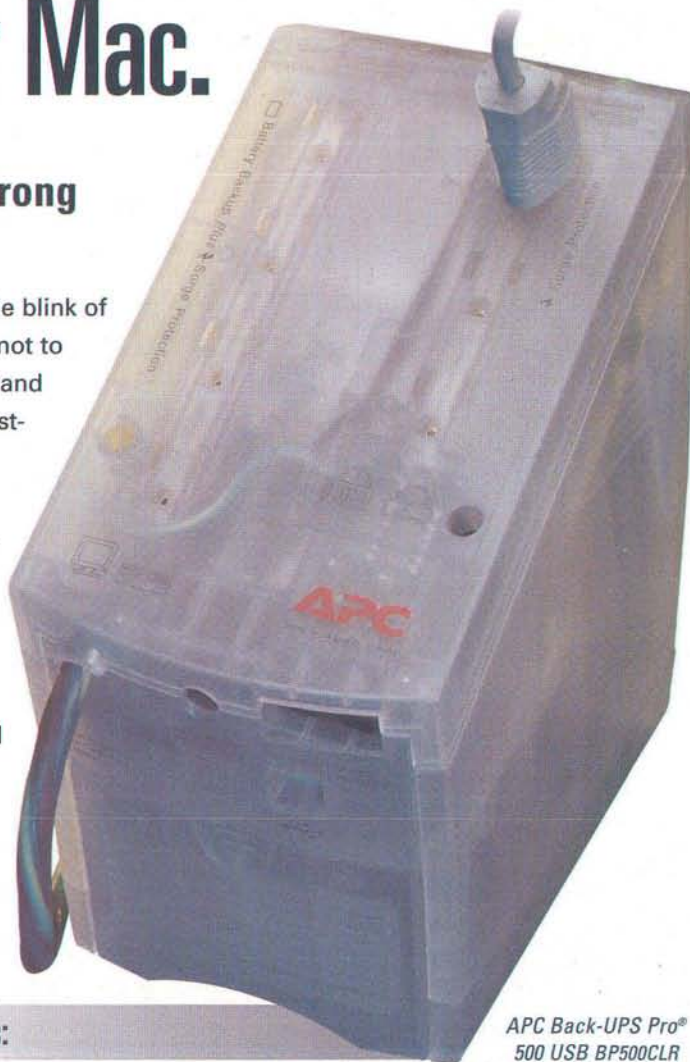
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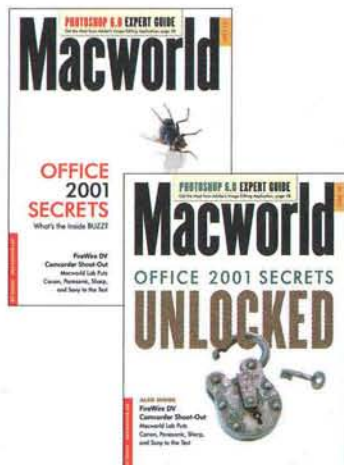


December 1, 1999 September, 1999

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Feedback



All Apologies

Tom Negrino sounds more like an apologist for Microsoft than someone giving an accurate assessment of Office 2001 ("Get It Together," January 2001). Therefore, here are a few items your readers should consider before paying tribute to the Borg.

When you install Office 2001, Microsoft dumps a load of its junk fonts into your Fonts folder. Does anyone really use Tahoma, Verdana, or Webdings? Then there's the vaunted project gallery. Who cares? This was the first thing I turned off after removing the junk fonts.

Mr. Negrino seems to think that compatibility with Office 97 and Office 98 cross-platform applications is something to rave about. Quite frankly, these are table stakes. And while we're on the subject of compatibility, it should be pointed out that Entourage is not compatible with Outlook Exchange Server. Quite simply, if you're using Outlook in a corporate environment, you're out of luck.

William Schmidt

Raleigh, North Carolina

Your review of Microsoft Office 2000 failed to note a serious drawback of the program for people who use handhelds: the

conduits included in Microsoft's Value Pak are inadequate.

The Entourage categories don't transfer between Entourage and handhelds. Categories created on a Palm device seem to multiply in Entourage every time you sync. There is no e-mail conduit, leaving myriad handheld users unable to transfer mail to and from Entourage.

Further, the newsgroups are showing multiple instances of people having difficulty with crashes as they try to sync. Microsoft's tech support is not very knowledgeable or helpful about this particular aspect of Entourage, and the company is not supporting handheld problems in Entourage.

Stuart Scadron-Wattles

Kitchener, Ontario, Canada

Scrabbled

Christopher Breen's review of MacSoft's Scrabble ("The Macworld 2000 Game Hall of Fame," January 2001) fails to men-

tion two very irritating features. The game has a pointless one-minute start-up video, and the disc must be in the CD-ROM drive before you can play the game. This means I cannot play it in planes without carting along my CD-ROM drive.

Sharon Muir

Rochester Hills, Michigan

Lego of My Wallet!

Greg Knauss suggests that Mac users should purchase educational Mindstorms kits from Pitsco Lego Dacta ("Legos, Will Robinson! Legos!" *Buzz*, January 2001)—but if they did, they'd be laying out more cash than necessary.

Mac-using Lego fans have been presented with a couple of roadblocks to Mindstorms heaven. First, Lego does not offer a Mac version of the programming software included with the Robotics *continues*

Invention System. Second, the cable included is a standard PC 9-pin serial of an unusual design that stymies attempts to use an adapter dongle with the IR tower used to communicate with the Mindstorms RCX (the "CPU" of the Mindstorms Robotics Invention System).

There is, however, a "très geek" solution: downloading Dave Baum's incredible MacNQC (www.enteract.com/~dbaum) and learning to program the RCX using a C-like language (NQC stands for "Not Quite C"). This solution would require only

the purchase of a Macintosh USB-serial cable.

Brian Johnson
Portland, Oregon

Hard Jive

Joseph Schorr's article about adding a second ATA hard drive ("Starving for Storage," *How-to*, January 2001) to first-generation G3s and G4s was very insightful, easy to understand, and alas, a complete let-down. After reading his simplistic instructions on how to go about adding a second drive, I instantly shopped for the best price on a

40GB ATA drive. Upon its arrival, I opened the box and placed this gorgeous gigabyte bank next to my first-generation G3, careful not to cover up Schorr's "how could you possibly screw this up" article spread out on the floor next to me. What to my blundering eyes did *not* appear, but a drive bay able to accommodate a secondary ATA drive. And that wasn't all: the computer itself does not even accommodate dual ATA drives!

All it would have taken was a simple "First, check to see if your first-generation G3 has a mounting bracket for dual ATA drives. If not, you'll need to go to a secondary SCSI drive."

Jeff Calbom
Phoenix, Arizona

We stated that the configuration shown was present in most Power Mac G3s and G4s, not all of them—a fact several readers discovered the hard way. Apple manufactured these Power Macs with a number of different configurations. The first step in a project such as this should always be confirming that your Mac's configuration matches the one in the instructions.—Joseph Schorr

Letters should be sent to Letters, *Macworld*, 301 Howard St., 16th Fl., San Francisco, CA 94105; via fax, 415/442-0766; or electronically, to letters@macworld.com. Include a return address and daytime phone number. Due to the high volume of mail received, we can't respond personally to each letter. We reserve the right to edit all letters. All published letters become the property of *Macworld*.

CORRECTIONS

MacSoft (The Game Room, January 2001) is an independent company.

The LCD screen of the Canon ZR10 ("DV Camcorders," Reviews, January 2001) measures 2.5 inches.

Movie Magic Screenwriter 2000 (Reviews, January 2001) requires validation via the Internet only once. **m**

The Feedbag

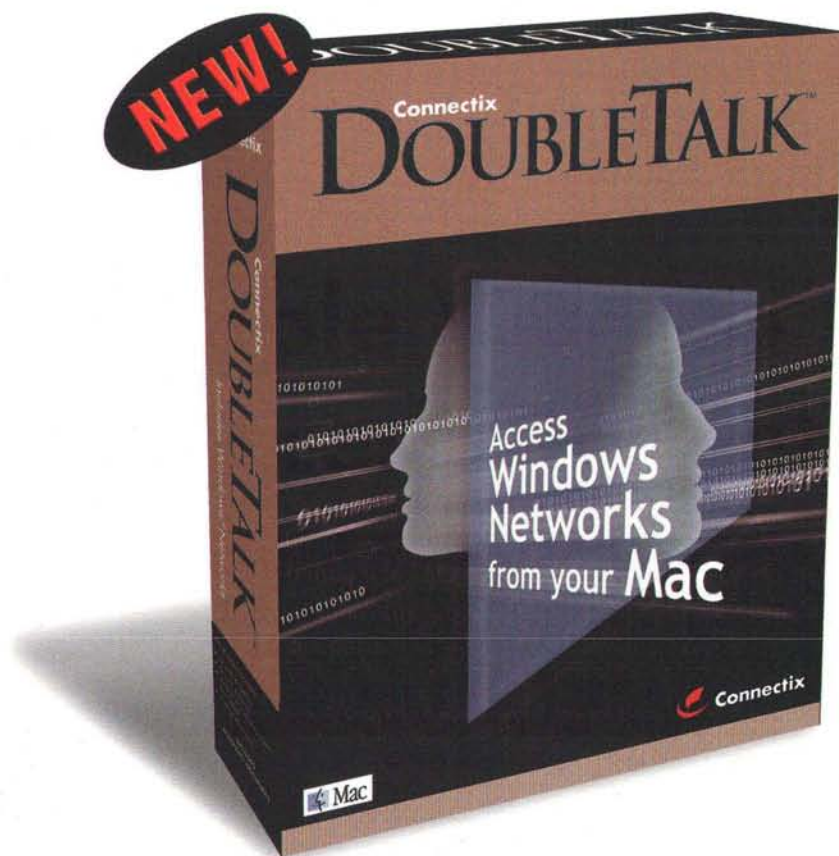
Many readers were confused about *Macworld's* dueling January covers. But reader Vince Campise caught on to our little scam: "Do I have some rare copy of *Macworld* that will be worth millions, like the 'Revenge of the Jedi' movie posters printed several months before *Return of the Jedi* was released?" Exactly. Here's what to look for: If your January issue's cover image is a gigantic fly or a rusted lock, your issue is worth approximately \$8. But if you've got a copy of *Macworld* with a cover depicting a locked-up Bill Gates being devoured by a gigantic fly, then you've got a veritable gold mine on your hands!

Reader Katy Huan also wanted to know what in the world led us to put out two covers. Was it "Personal preference? Fly exploitation?" No, Katy, it was actually just a sly shout-out to our main man, actor and Apple pitchmeister Jeff Goldblum.

But then again, maybe we shouldn't be in the shout-out business in the first place. Cecily Wood thinks we're trying too hard to be hip, informing us that "in general, the only adults who can achieve teen-speak are high-school and college teachers whose daily encounters with a large number of teens have an osmotic effect." Word, Cecily. You da bomb.

Speaking of bombs, Scott H. considered our "The Naked Sim City" piece (*Buzz*, January 2001) to be one, mostly because we failed to provide links to the patches mentioned in the article. (Try looking in Google.com's Sims category.) "I have been looking specifically for the Nude patch," says Scott, "which is something they should have built into the game itself." Oh, to be a fly on the wall at Scott's house—or a rusty lock, for that matter.

The Simple Way to Access PC Networks



DoubleTalk from Connectix revolutionizes Mac-PC networking by enabling Power Mac users to connect to PC networks and printers from within the familiar Mac interface. DoubleTalk sets up quickly and easily in the Mac environment. It automatically configures its network settings, then lets you access network resources and services through the Chooser or Network Browser. DoubleTalk works automatically and transparently in the background, requiring little or no user intervention.

Access file servers, transfer files from shared Windows workstations, print to networked Windows Postscript printers, and create a peer-to-peer network with Macs and PCs with little or no help from your IT department. Purchase Connectix DoubleTalk online from the Connectix eStore or from your favorite software retailer. For more information, go to www.connectix.com.

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News,
Views, and
Chatter
from the
World
of Macs

ACCESS DENIED?

Sleek and self-contained, the iMac is very nearly the perfect Internet computer—62 percent of new users go online the day they set up the machine. But if they head for some sites, those new users might find the Internet a rather inhospitable place.

One problem is apparent to the naked eye—some Web sites render differently depending on the OS used. *Outside* magazine's Web site (www.outsidemag.com), for example, has sharper-looking fonts when viewed on Windows browsers. And at some citysearch.com sites, text may appear in the wrong place on a Mac.

Still, design problems are increasingly rare. Credit Netscape 6 and Microsoft Internet Explorer 5, says David Kerns, a former editorial designer at nashville.citysearch.com and the current creative director at Denmark's Metropol.

"We develop for Mac and Windows boxes with the same end product and level of quality in mind," Kerns says. "We couldn't have done that three years ago, it was simply too expensive."

But although designers are trying to accommodate the Mac, the same can't always be said for developers of Web-based applications.

Some dot-coms that offer services over the Internet feature little or no

MACS FREE YOU UP to surf the Web. So why do some Web sites seem to be holding Mac users back?

Mac support. Take Web storage sites such as Xdrive.com and FreeDrive.com, which provide free online storage but don't produce Mac versions of their desktop plug-in software. Livejam.com lets musicians from all around the world come together to play instruments—unless they're trying to log in from a Mac.

But the worst slights come from Mac developers who give the platform short shrift online. The Palm executive team, for example, has more years of combined experience at Apple than at Palm, but the company limits Palm.net downloads to a Windows-only format. Intuit is a major Mac developer whose chairman, Bill Campbell, sits on Apple's board of directors—but Intuit's QuickBooks.com site won't work on a Mac and probably never will.

As sites add Mac capability, the situation will improve. And the upcoming Mac OS X release gives Mac users a Unix-based operating system that should make it easier for programmers to develop Web-based services. In the meantime, though, Mac users will just have to surf different. —MATHEW HONAN

More Info: www.macworld.com/subject/webdesign

Before you build a Web page that spurns the Mac, consult Macworld.com for news, tips, and reviews.

LINK

ROBERT WAGT

SPY FILES



Special advisory to all intelligence personnel: beware of hard drives disguised as key chains and pens. They have been known to contain everything from government documents to MP3s of incendiary rap songs. Be on the lookout for DiskOnKey and Q USB storage devices.

Produced by M-Systems (510/494-2090, www.m-sys.com), the DiskOnKey is a pen-size Flash memory device that comes in 8MB, 16MB, and 32MB sizes. Upon closer examination, you may not believe the DiskOnKey is a drive at all; it has no moving parts, batteries, or power supply. But subversives can plug DiskOnKey into the USB port of any Mac, Windows, or Linux system—no software drivers

required. M-Systems hopes to license DiskOnKey to the usual suspects—manufacturers such as IBM, which plans to sell a version of the device for \$50 to \$100.

Also a Flash memory device, the Q from El Corporation (408/956-7950, www.eiware.com) often masquerades as a key chain. Like the DiskOnKey, the drive requires no external power supply or cables and provides 16MB, 32MB, and 64MB of storage, selling for \$70, \$130, and \$200, respectively. Although the Q now works only with Windows machines, expect a Mac driver sometime in 2001.

This message will self-destruct in five seconds.—ANTON LINECKER

THE WIRELESS MAC

No Strings Attached

Tricking out your Mac with the latest in accessories is a blast; dealing with a rat's nest of USB and FireWire cables isn't as fun. So why not cut the ties that bind? We set out to build the perfect wireless beast. For less than \$600—not including the price of your Mac—you'll have no wires to hold you down.—MATHEW HONAN

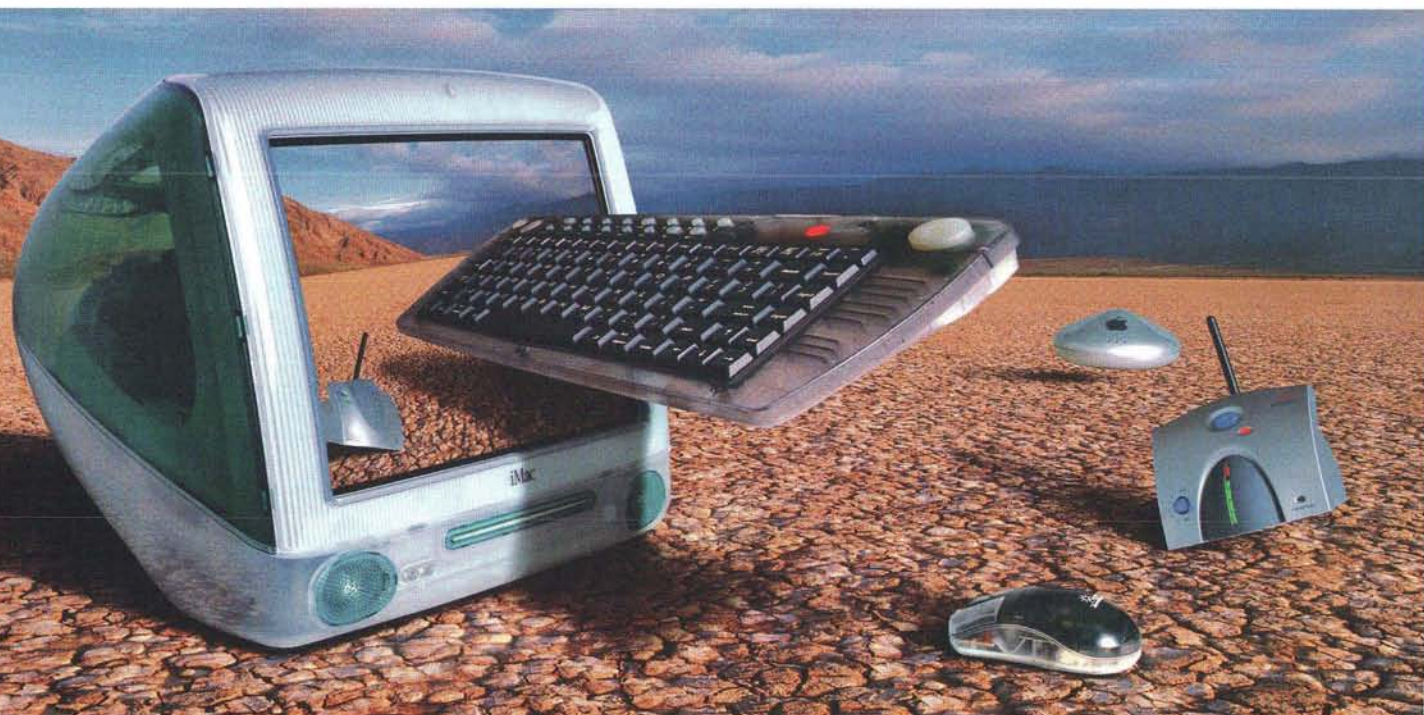
★ **IWEBKEY** (\$100; Macally, 626/338-8787, www.macally.com): This wireless keyboard sends signals to an infrared transmitter attached to one of your USB ports, for those times when you absolutely need to be 12 feet away from the monitor while typing.

★ **AIRPORT BASE STATION AND CARD** (\$299, \$99; Apple, 800/692-7753, www.apple.com): Surf the Web while lounging poolside. Apple's wireless network technology lets you connect to the Internet from as far away as 150 feet.

★ **AEROMOUSE** (\$59; MacSense, 800/642-8860, www.macsense.com): Mice were meant to roam free on the open range. This tailless mouse can send a 90MHz radio-frequency signal 16 feet to a receiver attached to your computer.

★ **KIMA** (\$150; Akoo, 708/583-9600, www.akoo.com): Freedom to move is great. But freedom to dance—that's the stuff of Kevin Bacon movies. These transmitters send an FM signal from your Mac, letting you play MP3s or Web radio stations on your stereo.

Clockwise from top: Macally's iWebKey, Apple's AirPort Base Station, Akoo's Kima, and MacSense's AeroMouse





EUDORA'S DASH OF PEPPER

I've Never Been So Insulted ... or Have I?

Qualcomm's Eudora has added a new feature, MoodWatch, aimed at saving e-mailers from themselves. MoodWatch gives each message a hot-pepper rating—as many as three peppers, which indicate a message's potential for causing offense—before

you can hit Send. I tested MoodWatch by plumbing the depths of the 20th century—and my own in-box—for phrases ranging from insulting to outright defamatory. But MoodWatch is no match for an older, more reliable tool: common sense.—LISA SCHMEISER

"I loathe you. You revolt me stewing in your consumption . . . you are a loathsome reptile—I hope you die."

—D. H. Lawrence, author

MOODWATCH PEPPER RATING: 0

"Don't be so humble, you're not that great."

—Golda Meir, Israeli prime minister

MOODWATCH PEPPER RATING: 0

"What other problems do you have besides being unemployed, a moron, and a dork?"—*John McEnroe, tennis player*

MOODWATCH PEPPER RATING: 0

"I am sitting in the smallest room of my house. I have your review before me. In a moment it shall be behind me."

—Max Reger, composer

MOODWATCH PEPPER RATING: 0

"I got laid off after three months . . . you met my boyfriend (almost hubby), who is still slaving on his Ph.D. at UCSF."

—A friend of the author

MOODWATCH PEPPER RATING: 🌶️🌶️🌶️

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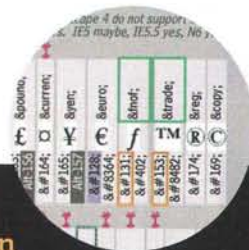
Ask a Silly Question . . .

It used to take weeks for falsehoods to spread throughout the land. Now, with a few keystrokes and a good e-mail client, they can be circulated in a matter of minutes. But where can you turn to assure Uncle Walt that gangs of teens are not roaming the streets looking to swipe his kidneys? Try **Straight Dope** (www.straightdope.com), a site dedicated to enlightening the misinformed. The online home of Cecil Adams's syndicated column, Straight Dope tackles everything from misheard song lyrics to misunderstood scientific principles. Can you see an on-camera hanging during *The Wizard of Oz*? No. Did Neil Armstrong muff his "One small step for man" speech? Probably not. What's the sound of one hand clapping? Um . . . it's kind of complicated. "Fighting ignorance since 1973," proclaims Straight Dope. "It's taking longer than we thought." Who knows? Maybe the Internet will speed things up.—PHILIP MICHAELS

MAC STUFF

I'll Wait for the CliffsNotes Version

As HTML pages have become more complex, designers have had to devote an ever larger chunk of brain space to the Web's language. The details required to design and code a Web page could fill a phone book—or a crowded cheat sheet. The \$10 HTML Card, from VisiBone (www.visibone.com), includes everything you'd ever want to know about HTML, CSS, and browser bugs. Compressed onto two 8.5-by-11-inch, fold-open pages, HTML Card frees you from time-consuming searches and tedious references—from everything, in fact, except your reading glasses.—GREG KNAUSS



For the film *Thirteen Days*, VCE used an army of Macs to make footage of a nuclear blast (left) look like new (right).



AT THE MOVIES

MACS OF THE APOCALYPSE

You can do a lot of things with a Mac—but can you push the planet to the brink of Armageddon? After all, isn't that what Windows is for?

The mad scientists at Visual Concept Entertainment (VCE) managed to bring about nuclear annihilation—or a reasonable facsimile of it. The Los Angeles-based visual-effects company used Macs to create a montage of atomic-bomb blasts for the opening credits of *Thirteen Days*, a drama about the Cuban missile crisis. VCE had already produced the documentary *Trinity and Beyond*, about the early days of nuclear weapons, so it had plenty of atomic-explosion footage to bring to the project.

Using Adobe After Effects 4.1.1, Pinnacle Systems' Commotion 2 and 3, and Artel Software's Boris effects packages, VCE visual-effects artist Kurt Wiley removed scratches and dirt, performed color corrections, and tidied up the old footage to make it look more like sequences filmed expressly for *Thirteen Days*.

Wiley, who also worked on the Arnold Schwarzenegger movie *The Sixth Day*, has been using Macs for film production since 1988. "The Mac is easier to set up than Windows machines, is easier to fix when something goes wrong, and has a more consistent interface," he says. "We use three to five applications on any one project, and having that constant interface is important."

For *Thirteen Days*, Wiley worked on a half-dozen Macintosh 9600s with XLR8 accelerators, as well as four multiprocessor Power Mac G4s. While the 9600 may be a middle-aged machine, VCE uses the old-

timers because of their abundant expansion slots—a necessity for video editing systems, which require a wide range of interface cards. Thanks to the giddy-up produced by the accelerators, the 9600s sprinted through the editing sessions with processor speeds matching those of a 400MHz machine.

The G4 didn't need any turbo boost. Although Wiley would like to see more slots on the newer machine, he says the G4 is "the best Mac I've ever used. It's very fast and I'm doing things on it that I could not do three years ago." Like wiping out Earth in a barrage of mushroom clouds, for instance.—GREGG WRENN

GREAT PERFORMANCES

Macs have plenty of behind-the-scenes movie experience. But Power Macs, iMacs, and PowerBooks also end up in front of the camera. While the Mac is usually confined to blink-and-you'll-miss-it bit parts, occasionally the computer lands a central role in which it outshines its human costars. Here are the Mac's most memorable moments on the silver screen, along with a quick review of whether it gave an Oscar-caliber performance.—PHILIP MICHAELS

STAR TREK IV: THE VOYAGE HOME

When the *Enterprise* crew journeys back to the 20th century, Scotty (James Doohan) can't believe the Mac SE doesn't have voice-recognition capabilities ("A keyboard . . . how quaint"). But that doesn't stop him from using it to concoct a formula for manufacturing transparent aluminum. **MAC RATING:** ★★★½ (While largely inanimate, the Mac still outacts William Shatner.)

FORREST GUMP

Forrest (Tom Hanks) receives a letter with a vaguely familiar apple-shaped corporate logo and learns that his money has been invested "in some kind of fruit company." **MAC RATING:** ★★★½ (We hope he sold his shares before last fall, or it's back to the shrimp boats.)

THE NET

Sandra Bullock is an on-the-lam computer whiz who uses any Mac she can get her hands on—as do her pursuers. Even better, the movie's denouement was filmed at Macworld Expo in San Francisco. **MAC RATING:** ★★★★★ (Never before has the error message "TCP/IP link dropped" been used to such dramatic effect.)

INDEPENDENCE DAY

The PowerBook 5300 helps Jeff Goldblum with everything from decoding the aliens' attack code to downloading a virus to the mother ship. **MAC RATING:** ★★★ (Who knew that a hostile alien life-form would be more Mac friendly than most software developers?)

MISSION IMPOSSIBLE

Here's an impossible mission: Explain why the PowerBook 5300c Tom Cruise uses to take down the bad guys displays a command-line interface. **MAC RATING:** ★★ (You would need at least a roomful of multiprocessor G4s just to decode this movie's plot.)

YOU'VE GOT MAIL

Call it character exposition through computers. Meg Ryan, the cute-as-a-button owner of an independent bookstore, uses a PowerBook. And the avaricious chain-store operator played by Tom Hanks? An IBM ThinkPad. **MAC RATING:** ★★★★★ (At last a movie that dares to tell the truth: all Mac users are as cute as buttons.)

If this is Norton™...

This is TechTool Pro...



Nothing can ruin your day faster than a broken computer. And while Macintosh is one of the most reliable computers in the world, sometimes things can go wrong. That's why we invented TechTool Pro. TechTool Pro is the super-utility that can find and isolate almost any problem on your computer. No other utility in the world comes even close to covering as many aspects of your Macintosh as TechTool Pro.

But diagnosing computer problems is only half the battle. Besides repairing drives, recovering data and checking the health of your Macintosh components, TechTool Pro can now help protect you against virus problems and software conflicts. TechTool Pro can also keep your Mac running at its peak between problems. The program optimizes your disk drive to make your computer run faster and more efficiently. Our RAM panel even allows you to see

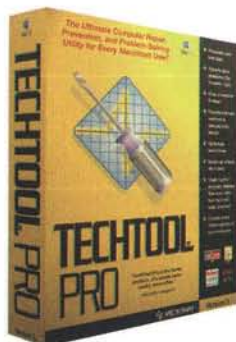
the inner configuration of your memory without opening your computer case.

Do all these features make TechTool Pro complicated to use? Not at all. The Multitester feature allows you to give your computer a full checkup with one click of your mouse. TechTool Pro even creates graphic, easy-to-read and understand reports. Now you can know the state of your computer without having a degree in computer science.

Every day, more and more Macintosh professionals are choosing TechTool over other system utilities. In fact, even Apple Computer includes TechTool Deluxe with every copy of their AppleCare™ Protection Plan. Simply put, TechTool Pro 3 is the most complete and powerful troubleshooting utility available for your computer. Why would you settle for anything less?



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Need someone to climb up Mount Everest? Sir Chris Bonington is your man. Or someone who will brave blizzards, broken ribs, and near starvation? Bonington has you covered there, too. But don't ask him to use a hang glider to escape from a remote mountaintop. "I think it's terrifying," says Bonington, who's been climbing mountains for 50 years but has yet to strap on a hang glider. The only thing more terrifying? Life without his Mac.—ADELIA CELLINI

PRO FILE

Peak Performance

Q&A with SIR CHRIS BONINGTON

Q: Do you have any upcoming excursions?

A: My expedition [this] year is to a completely unexplored group of peaks in Ladakh, in the northwest corner of India. The highest peak there is about 6,700 meters [almost 22,000 feet]. We'll be taking satellite communications with us and running a Web site from there.

Q: You mentioned your Web site. What's on it?

A: I've got a whole load of stuff on it. There's autobiographical details, a picture library, a diary of my various expeditions, stuff from the past that people can use as reference. And then, on any trip, I bring it up to date every day or so with pictures and stories.

Q: Is your Mac coming with you?

A: Oh, yes, I never go without it.

More Info: www.macworld.com/2001/04/buzz/bonington.html

Chris Bonington explains the lure of mountain climbing and why the Mac interface towers miles above Windows.

LINK

MAC STUFF

He Ain't Heavy—He's My Laplander

If you order the Laplander Classique from A Happy Medium (702/567-6842, www.ahappymedium.com), you could be in for a disappointing shock: this product has nothing to do with the hearty people who hail from Scandinavia's frozen recesses—and there's not even a mention of their ever-present reindeer herds. What you do get is a leather-bound carrying



case to hold your PowerBook and organize CDs and DVDs while you're on the road. What's more, the \$109 Laplander opens into a portable workstation with a sliding drawer for important papers. At 14 by 14 by 7 inches, the Laplander weighs a mere 6.5 pounds—considerably less than your average reindeer.—MATHEW HONAN

Q: So what do you use your laptop for during excursions?

A: It goes no further than base camp. If we've got satellite communication, we use it to run my Web site (www.bonington.com)—which means, of course, that you need a satellite phone, and you also need some means of powering up batteries. Sometimes I use just solar power. The problem with that is if you have a long period with very bad weather, you run out of power. Or you can take a small generator, but it's taking that much more [equipment] into base camp.

Q: How do you use your Mac when giving motivational speeches?

A: I use my ascent of Everest in 1985 as a sort of model or metaphor to talk about leadership and teamwork. I tell the story with a combination of scanned slides, imported video, animated diagrams, and recordings taken during the expedition. Originally I did this all on slide projectors, which is bloody complicated. I just carry my PowerBook around with me, and I've got a video projector. But these days, with digital projectors, the PowerBook will talk to them with no problem at all.



What's HOT

A QUICK LOOK AT THE WORLD OF TECH

1. For the first time since Steve Jobs returned, Apple won't report a quarterly profit. Let's address the problem rationally—clearly, that damn G4 Cube is some sort of evil curse.
2. Regulators give the AOL and Time Warner merger the go-ahead. As part of the merger, the Atlanta Braves will now do all their postseason choking online.
3. Intuit's online version of QuickBooks isn't compatible with the Mac. Helpful Intuit executives suggest Mac users try logging on to www.tough-luck-suckers.com.
4. Bill Gates asks the FCC to investigate America Online's dominance in instant messaging. "What kind of monstrous company gives away an application for free?" Gates demands.
5. Steve Jobs says Apple missed the boat on CD-RW drives. "And I shouldn't have bought that Betamax VCR back in 1980," he adds.

Product WATCH



RELEASED

- A portable CD-R/RW drive from Sony (800/352-7669, www.sony.com): Besides backing up files and burning CDs, the battery-powered, USB-ready **CRX10U-A2** doubles as a stand-alone CD player. The drive, available in April 2001, sells for \$399.
- An MP3 player from Rio (800/468-5846, www.riohome.com): the **Rio 800** offers up 64MB of storage, a voice recorder, and remote control. It works with other Rio accessories such as an FM tuner, a car cassette adapter, and the Backpack expansion product. The Rio 800 sells for \$280.



UPDATED

- **Rewind**, from Power On Software (800/344-9160, www.poweronsoftware.com): Version 1.0.3 of the file-recovery utility extends compatibility to Mac OS 8.1 and later; eliminates compatibility issues with Graphic Converter, Adobe Photoshop, Netscape Navigator, and Microsoft Internet Explorer; and adds support for disks and partitions as small as 200MB.
- A browser from iCab (www.icab.de): **iCab Pre2.3** lets users select which JavaScript code iCab should execute, improves cookie management, and pre-caches the HTML links on displayed pages.

PDAs—IN COLOR!

Black-and-White Blues

Both Palm and Handspring are releasing PDAs with color displays in 2000, and handheld users might feel like Dorothy leaving behind the monochromatic world of Kansas for the Technicolor splendor of Oz. But history shows that the leap from black-and-white to color isn't always a quick trip down the Yellow Brick Road.—PHILIP MICHAELS



ANNOUNCED

- A management change at Adobe Systems (800/833-6687, www.adobe.com): Company President Bruce Chizen will serve as CEO, succeeding John Warnock. An Adobe cofounder, Warnock assumes the newly created position of chief technology officer while remaining cochairman of the company.
- The sale of 3dfx's assets to Nvidia (408/615-2500, www.nvidia.com): 3dfx makes the Voodoo4 and Voodoo5 graphics processors and introduced its first Mac products in 2000. But poor financial results forced the company to sell off core assets to Nvidia, which plans to expand its GeForce2 MX processor beyond the PC market.—Compiled by PHILIP MICHAELS

■ FIRST FULL-LENGTH TECHNICOLOR MOVIE

WHEN: 1935

WHAT: *Becky Sharp*

COST: 24 cents (average ticket price that year)

RESULT: A "witty but sometimes ponderous adaptation of Thackeray's *Vanity Fair*. . . .

★★½ stars."—Leonard Maltin, film critic

LEGACY: Paved the way for Ted Turner to colorize *Casablanca* 53 years later.

WIDELY ADOPTED: By the 1950s, in response to growing competition from television.

■ FIRST REGULAR COLOR TV BROADCASTS

WHEN: 1953

WHAT: *Dragnet*

COST: \$1,175 (the price of a color-compatible Admiral television set)

RESULT: "You know, I never realized how healthy and pink Jack Webb looks."

LEGACY: That creepy NBC peacock.

WIDELY ADOPTED: By the mid-1960s, as networks started broadcasting entirely in color.

■ FIRST MACINTOSH DESIGNED FOR COLOR

WHEN: 1987

WHAT: Mac II

COST: \$3,898 (for basic system)

RESULT: Hardware enthusiasts reduced to quivering masses of covetous lust.

LEGACY: From his exile at a mountain outpost, Steve Jobs was heard to wonder, "Why can't the outside of the computer come in color, too?"

WIDELY ADOPTED: By 1993, as Apple phased out production of monochrome desktop Macs.

■ FIRST NEW YORK TIMES FRONT PAGE IN COLOR

WHEN: 1997

WHAT: Color photos grace the October 16 front page.

COST: 60 cents (newsstand price in the New York metropolitan area)

RESULT: Just before the dawn of the twenty-first century, the *Times* joins the twentieth.

LEGACY: Color photos are nice and all, but where are the comics?

WIDELY ADOPTED: A decade earlier.

■ FIRST COLOR PALM DEVICE

WHEN: 2000

WHAT: Palm IIIc

COST: \$449

RESULT: Users thrill to 256 colors and wonder why Palm OS applications can't support them very well.

LEGACY: Competition for rival Handspring, which promptly releases a color PDA of its own—with 16-bit color, versus the 8-bit color in the IIIc.

WIDELY ADOPTED: In the future—once prices fall and implementation improves.



Need more space? Get the OnStream Echo. A whopping 30GB of space in a wicked fast FireWire tape drive. Perfect for backup, Echo has endless storage space for your MP3s, digital photos, DV files, and all the other stuff that can't fit on your Mac. And with our patented ADR technology, Echo is the most reliable tape technology on the market. Think more. Think Echo.



THE ULTIMATE BACKUP SOLUTION FOR MACS

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Echo 30GB FireWire includes
Dantz Retrospect® Desktop Software

\$499 (approximate street price)



www.onstream.com/think

for product reviews, comparisons & additional info

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Microsoft **Office:mac** 2001

Made easy. Made for Mac. | www.office2001mac.com



Rita

I need to communicate. With my office, my boss, my customers. My kids. I need words, numbers and pictures to speak their language. And a way to use them that's fast and fun. **Microsoft® Office 2001.** All the essentials.

Microsoft

The Great Giveaway

BY CHRISTOPHER BREEN

Where to Find the Best **Free Stuff** online, from **Software to Soap**

free. Our language is littered with high-flown testimonials to the word—*the best things in life are free*; *free as a bird*; *get out of jail free*—and it's no wonder. Who among us passes up an opportunity to get something for nothing?

Getting goods for free has never been easier, thanks to the explosive growth of the World Wide Web. No longer must you wait by your mailbox for envelopes crammed with coupons; place your trust in complete strangers who call you during dinner with vague promises of exotic vacations and miraculous appliances; or hope against hope that Sunday's newspaper carries not only the day's news, sports, and weather, but also a tiny bottle of a popular beauty unguent. You can now go out and grab gobs of free goodies—including product samples, frequent flier miles, software, Web-based storage space, and advice—all from the comfort of your Mac.

Is the utopian dream of a free lunch too good to be true? Were your parents correct when they suggested that rewards come most quickly to those who work for them? Find out for yourself by firing up your browser and joining us as we uncover the finest free treasures on the Web.

Photography by
CHIP SIMON



SOFTWARE FOR YOUR MAC

You know there are scads of free-ware and shareware applications on the Web, but were you aware that some older—though still reasonably capable—commercial applications are free for the taking?

Free Word Processors Looking at today's software catalogs you wouldn't know it, but at one time Mac users had several choices in word processors. While the ubiquitous Microsoft Word has driven most competitors out of the market, you can find free copies of two of these venerable word processors on the Web.

Corel is giving away WordPerfect Enhancement Pack 3.5e, a word processor that still packs a punch even though it was last updated in 1997. You can find it at VersionTracker.com (www.versiontracker.com) by typing **WordPerfect** in the Search field. Nisus (www.nisus.com) offers Nisus Writer 4.1.6 for the price of your name, address, phone number, and e-mail address. Though these programs look a bit long in the tooth, they should meet the needs of all but the most-demanding users.

Free Graphics Applications

Corel gives away CorelDraw 8 Limited Edition (www.corel.com/draw8mac_le/eula.htm), a full-featured drawing application. A copy of Corel PhotoPaint 8 Limited Edition, a painting and photo-retouching application, is included. Be warned that unless you have a broadband connection to the Web, you could end up waiting a *long* time for this 53.6MB file to make its way to your Mac.

If you'd like to work in three dimensions rather than two, download a copy of Strata's Strata 3D 3.0.2 (ftp://cdrom.digitalriver.com/pub/strata3/Strata3D_302_Installer.sit). As

with many free, formerly commercial applications, Strata 3D's documentation is a little sparse.

Free Fonts Nothing has the power to enhance or mangle the look of a document like its fonts. If you feel limited by the fonts that shipped with

in the bottom corner of your Mac's screen in Eudora's full free version.

Free Chat Spend more than a couple of minutes around kids and their Macs, and you'll hear the distinctive chime of Instant Messenger—the omnipresent computer chat

client—which indicates that someone, somewhere, would like to bend your electronic ear in a real-time chat session.

Instant Messenger was once a utility solely for America Online users, but it now has spread to the Web, thanks to AOL subsidiary Netscape. If you're feeling chatty, download your copy of Instant Messenger at <http://home.netscape.com/aim/index.html?cp=hopl2hb4>.

Free E-mail Addresses

Have your friends and coworkers been avoiding



you Mac, check out Erik Carlson's Macintosh Font Vault (www.erik.co.uk/font) and FontFreak (www.fontfreak.com). Both sites carry free and shareware PostScript and TrueType fonts.

WEB RESOURCES

Look, the *i* in iMac and iBook stands for *Internet*, so why not take advantage of some of the wonderful free tools and sites on the Web that can make your Mac more productive and Web savvy?

Free E-mail Client Microsoft Outlook Express, a free e-mail client, comes bundled with your Mac, but if you'd like to try a different and very powerful tool, Qualcomm's Eudora (www.eudora.com) is yours for the taking—if you're willing to put up with advertising. That's right, ads appear

you lately? Perhaps it's because you spam them every couple of months with yet another announcement that your e-mail address has changed. Why not get a permanent—and free—e-mail address that's not tied to a particular Internet service provider?

Such e-mail accounts are widely available from Microsoft, Netscape, Yahoo, and of course, Apple. All four services are free, but they differ in the amount of storage space they offer: Microsoft's Hotmail offers 2MB of storage, both the Mac.com portion of Apple's iTools and Netscape's WebMail provide 5MB, and Yahoo Mail gives you 6MB (which still isn't all that generous for e-mail storage). Apple's iTools offers free forwarding of your Mac.com e-mail

to another POP address, whereas Yahoo provides this service only if you agree to receive unsolicited messages from Yahoo and its advertisers. iTools also lets you use a standard e-mail client such as Outlook Express or Eudora, while the other services require you to use a Web browser to get your e-mail messages.

more tuneful—or create tunes on your Mac—try these resources.

Free MP3 Player QuickTime Player is able to play MP3s, but it doesn't let you gather a bunch of MP3s in a playlist and play those tunes in order. For a true MP3 player, check out Apple's iTunes (www.apple.com/itunes/) or the free version of Casady & Greene's SoundJam

Music Archive (www.iama.com). This site distributes music in MP3 and RealPlayer formats and specializes in bands that are unsigned or on independent labels. MP3.com (www.mp3.com), though a bit more ad laden, is also worth checking out.

Those seeking classical MIDI files—electronic music files that you can play with QuickTime Player or

The i in iMac and iBook stands for Internet, so why not take advantage of some of the wonderful free tools on the Web?

To sign up for these services, use these links:

Hotmail: www.hotmail.com

WebMail: <http://home.netscape.com/webmail/index-f.html>

Yahoo Mail: <http://mail.yahoo.com>

Mac.com: http://itools.mac.com/Email_marketing.html

Free Web Storage As broadband DSL and cable-modem connections become more common, the idea of storing dozens of megabytes of files on an Internet-based server isn't the laughable proposition it once was. The best deal among the available Internet-storage providers is Apple's free iDisk, part of iTools (<http://itools.mac.com/itoolsmain.html>), which provides 20MB of storage. Just sign up for iTools, and the space is yours to use as you will. For additional space on Apple's servers, the company charges \$100 annually per 100MB of storage. If you have concerns about privacy, make sure to read the membership agreement and privacy policy (www.mac.com/help/community/pgs/cmprivcy.html).

MUSIC

Music makes the world go round, right? If you'd like to make your Mac

MP (www.soundjam.com). The new iTunes can play and encode MP3s. If you have a brand-new Mac, it can also burn CDs. (Apple says iTunes may work with other drives in the future.) SoundJam MP Free allows you to encode up to 30 MP3 files and then reverts to a simple MP3 player.

Free Music-Notation Software Coda Music Technology (www.codamusic.com), maker of the Mac music-notation application Finale 2001 (*Reviews*, January 2001), recently released Finale NotePad, a free, stripped-down notation program. Finale NotePad is more come-on than complete notation solution—the program includes a menu for upgrading to other Coda products, limits you to eight instrument parts per score, and lacks support for chord symbols—but it's not bad for whipping up a simple score.

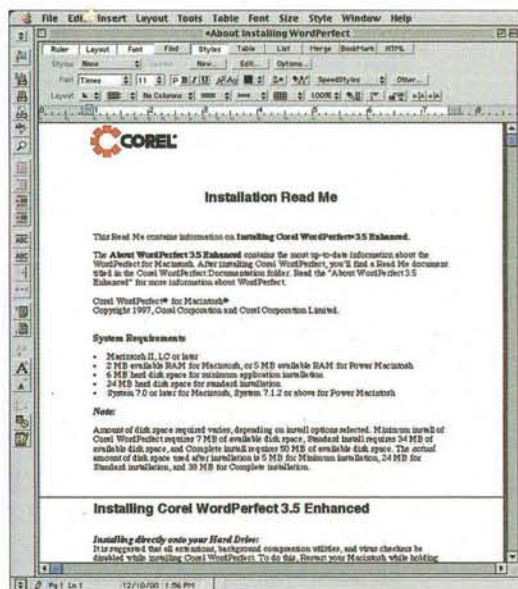
Free Tunes Think free music and your mind immediately turns to Napster (www.napster.com). But there are places other than Napster to get music that's not only free but also *legal*. One such spot is the Internet Underground

through a MIDI synthesizer—should make a beeline for the Classical Music Archives (www.prs.net/midi.html) for a dose of switched-on Bach, Beethoven, and Brahms.

ENTERTAINMENT

Your Mac can entertain as well as educate. When you have a mind to unwind, give these sites a spin.

Free Movies The days when short films were shown between features at the local movie house are long gone. *continues*



Word to the Wise It may not offer an animated assistant, but Corel WordPerfect Enhancement Pack 3.5e is plenty powerful and free, free, free.

Fortunately the descendants of such films thrive on the Internet. To view some of the best, worst, and oddest short subjects being made today, point your browser to iFilm (www.ifilm.com) and Atom Films (www.atomfilms.com). Both sites feature live action and animation, offer content that may not be suitable for all ages, and stream QuickTime as well as RealPlayer content. You have to register for each site—popcorn not included.

Free Network Gaming Scott Kevill's GameRanger site (www.gameranger.com) is the place where Mac gamers gather to do battle, play Scrabble, or babble about their favorite pastime—networked Mac games. After you register, log on to GameRanger, find like-minded opponents, and get ready to rumble. (GameRanger is only a means for playing networkable games; the client is free, but players must supply their own games.)

More-traditional games such as backgammon and chess are also available on the Web. MacFIBS (www.fibs.com/macfibs) is a popular backgammon server, and the Free Internet Chess Server (www.freechess.org) is well respected. Both sites provide downloadable clients.

Free Games The Web is overflowing with free games—many of them Java based. A few sites worth visiting for such games are Thinks.com (www.thinks.com), pogo.com (www.pogo.com), and Yahoo Games (<http://games.yahoo.com>). The games found on these sites run the gamut but tend toward the traditional—crosswords, puzzles, and board and card games. Be warned, however, that some of these games were written with the

PC's right mouse button in mind, and certain arcade games won't work properly with the Mac—no, not even with a Mac-compatible multibutton mouse or through control-clicks.

Although you can find demos of many recent games on the Web sites of the games' various publishers, you can save time by going to a single source: macgamefiles.com (www.macgamefiles.com). This comprehensive site carries game demos, shareware games, and patches and updates—as well as free games, to boot.



STUFF

Just because the main way you access the Web is through your Mac doesn't mean the free stuff found on the Web is meant only for computers.

Free Samples If you rejoice when a tiny box of cereal or diminutive shampoo sample appears in your mailbox, you're going to love these Web sites.

TheFreeSite.com (www.thefreesite.com) is a portal for freebies avail-

able on the Web. In addition to providing links to computercentric items such as free clip art, stock quotes, and fonts, it includes links to sites that offer tangible merchandise. On a recent visit to TheFreeSite.com we found links to free offers of analgesic samples, a calendar featuring celebrities and their dogs, and a cosmetics collection.

The site FreeSamples.com (www.freesamples.com) deals strictly with real goods—cleansers, candy, cosmetics, and other such products. In contrast to TheFreeSite.com, FreeSamples.com's offers come from

its advertising partners in exchange for passing along to them your personal information—your name, address, e-mail address, birth date and gender, the number of people in your household, and the age of those people (see "Free for the Asking?"). In addition, FreeSamples.com uses cookies to more carefully target the advertising you see on its Web site.

Free (Almost) Film Processing The site Snapfish.com (www.snapfish.com) will

develop and print your 35mm color-print film for next to nothing: \$1.69 to cover shipping and handling of the prints and negatives. What's the catch? You must view electronic prints of your film—and the advertisements that accompany them on the Web—within 30 days of notification that your prints are online. Should you fail to do so, you pay an additional \$3.99 per roll. To become a member of Snapfish.com, you must



Free Play Why spend quarters at the arcade when you can play arcade games for free on sites such as pogo.com?

provide your name, address, e-mail address, and credit card number. The company uses this information to charge you for shipping and delivering your prints.

Free Shipping As the name implies, freeshipping.com (www.freeshipping.com) pays for your

ClickRewards' currency—by shopping at sites such as Gap Online and Barnes & Noble.com. You can redeem ClickMiles for frequent flier miles on airlines such as American, Continental, and United. You can also spend your ClickMiles on merchandise—electronics, CDs, and toys—or donate them to a charity.

The site beenz (www.beenz.com) operates a

similar program. But unlike ClickRewards, beenz rewards you solely with merchandise—no frequent flier miles. Service partners include FTD.com, SmartPortfolio.com, and Barnes & Noble.com.

MyPoints (www.mypoints.com) is like beenz, but it lets you earn

information you receive could turn out to be priceless.

Free Translation InterTran (www.tranexp.com/intertran/) offers free translation from and to the world's most-common languages—including English, French, Spanish, and German—as well as less-universal languages such as Welsh, Icelandic, and Romanian. This live translation service is provided largely as an opportunity to advertise InterTran's commercial translation software, and the results of queries to the service are likely to be mixed.

Babel Fish (http://babelfish.altavista.com/translate.dyn) does not support as many languages as InterTran does, but its work is much more accurate. For example, Babel Fish correctly translated the popular Spanish phrase "*¿Albóndigas, no te dije?*" into "Meatballs,

Are some offers of free stuff too good to be true? The answer depends on the value you place on your time and privacy.

shipping costs when you buy from select vendor sites. Although these sites include merchants that sell flowers, wine, apparel, and furniture, you won't find a lot of major-name stores featured here, and shipping is free only when you've exceeded a certain price level. But if you're in the market for items available through the site, using freeshipping.com may save you a few bucks.

Free Rewards If you participate in a frequent flier program, rewards programs on the Web will be familiar. By shopping on the Web at particular partner sites, you earn points that can be applied toward goods and services.

ClickRewards (www.clickrewards.com) allows you to earn ClickMiles—

additional points by surrendering more of your personal information to the service. It then uses that information to send you tailored advertising.

MilesSource.com (www.milesSource.com) focuses on frequent flier miles and travel rewards (car rentals and lodging), but you can also trade in your AwardMiles for magazine subscriptions, gift certificates, or merchandise.

REFERENCE

It's been said that free advice is worth exactly what you pay for it, but there are spots on the Web where the free

didn't I tell you?" whereas InterTran suggested the phrase meant "Meatballs, not yourself trinket?" As you do with InterTran, you simply select *continues*



Click, There It Is Online outfits such as ClickRewards allow you to earn points by shopping at partner sites.

BY THE TIME WE REACH THE AGE OF CONSENT, two complementary thoughts have been firmly planted in our consciousness: Milton Friedman's assertion that "there's no such thing as a free lunch" and our parents' counsel that "you can't get something for nothing." Stir in P. T. Barnum's claim that "there's a sucker born every minute" and you have to wonder whether these offers of free stuff on the Web are too good to be true.

The answer to that question depends on the value you place on your time and privacy.

INFORMATION AS INCOME A new economic model has emerged on the Web, one in which information, rather than dollars, serves as the currency. Many of the Web sites we mention here demand a measure of information from you in exchange for the opportunity to utilize their service. At the very least, a site will ask for your name and an e-mail address for the purpose of identification. Sites that offer free goods and services may

ask that you provide more-detailed information—your address, phone number, gender, age, and optionally, race and income—in order to tailor the advertising you see on associated sites. Most of these sites also demand that your browser accept cookies, and many keep a record of your IP address. Some sites gather even more information by offering better goodies if you fill out surveys.

It's very unlikely that the information you provide will be used for nefarious purposes. The e-mail address you supply may be used to send you notices—but keep in mind that you have little control over how widely that e-mail address is dis-



**FREE
FOR THE
ASKING?**

tributed. Some sites let you opt out of receiving unsolicited e-mail, either on the site's registration form or from a link found within the site's privacy policy. To learn whether a site has such an option and how your personal information is used, be sure to read the terms and conditions, as well as the privacy policy, before signing up. Look for the TRUSTe symbol (www.truste.com), which indicates that a site has agreed to conform to an established set of privacy principles.

DON'T BE A SUCKER While it may seem like a fair bargain to provide information for free swag, there's no need to go overboard. For example, if you don't want your personal e-mail account to be flooded with unsolicited messages, use one of the free e-mail services we mention—Hotmail or Mac.com, for example—to create an account that you can use as the contact address for

free sites. Knowing that the in-box is likely to be crammed only with spam means you don't have to check that account often.

If you must pay for something, use a credit card so that you have some recourse if the transaction goes sour. And provide your credit card number only when it makes sense. For example, Snapfish.com requests your credit card number so it can easily charge you for the expense of shipping your photographic prints. Avoid any site that asks for a credit card number as a matter of record or identification, and never give your Social Security number to a Web site.

the two languages, type in text, and click on the Translate button to view the results.

Free Encyclopedia The days when Mom and Dad happily ponied up hundreds of dollars for a multi-volume encyclopedia are over—in the Information Age, events move too quickly for knowledge to be committed to such a static medium. But although hardbound encyclopedias may be a rarity, their electronic equivalents aren't. Encyclopedia Britannica (www.britannica.com) offers such a resource. Though laced with advertisements, Britan-

nica.com provides a free and easy-to-use source for all kinds of information, as well as an online version of Merriam-Webster's *Collegiate Dictionary*.

Free Tax Information and Forms This may just be the most helpful free site on the Web at this time of year: the Internal Revenue Service (www.irs.gov). Some folks will be gratified to know that a portion of their tax dollars goes toward maintaining a site that offers useful tax information, as well as downloadable tax forms in Adobe Acrobat's PDF format.

THE LAST WORD

Finally, if your visit to the Internal Revenue Service's site has wiped the sunny smile from your face, restore your good mood by keeping this article in mind. It's nice to know that our Macs can help us do more than just work, play, and pay bills. They can also help us find some of the few things in life that are free. **m**

Contributing Editor CHRISTOPHER BREEN pens *Macworld's* Mac 911 column and coauthored *My iMac*, second edition (IDG Books Worldwide, 2000).



Our family has expanded!

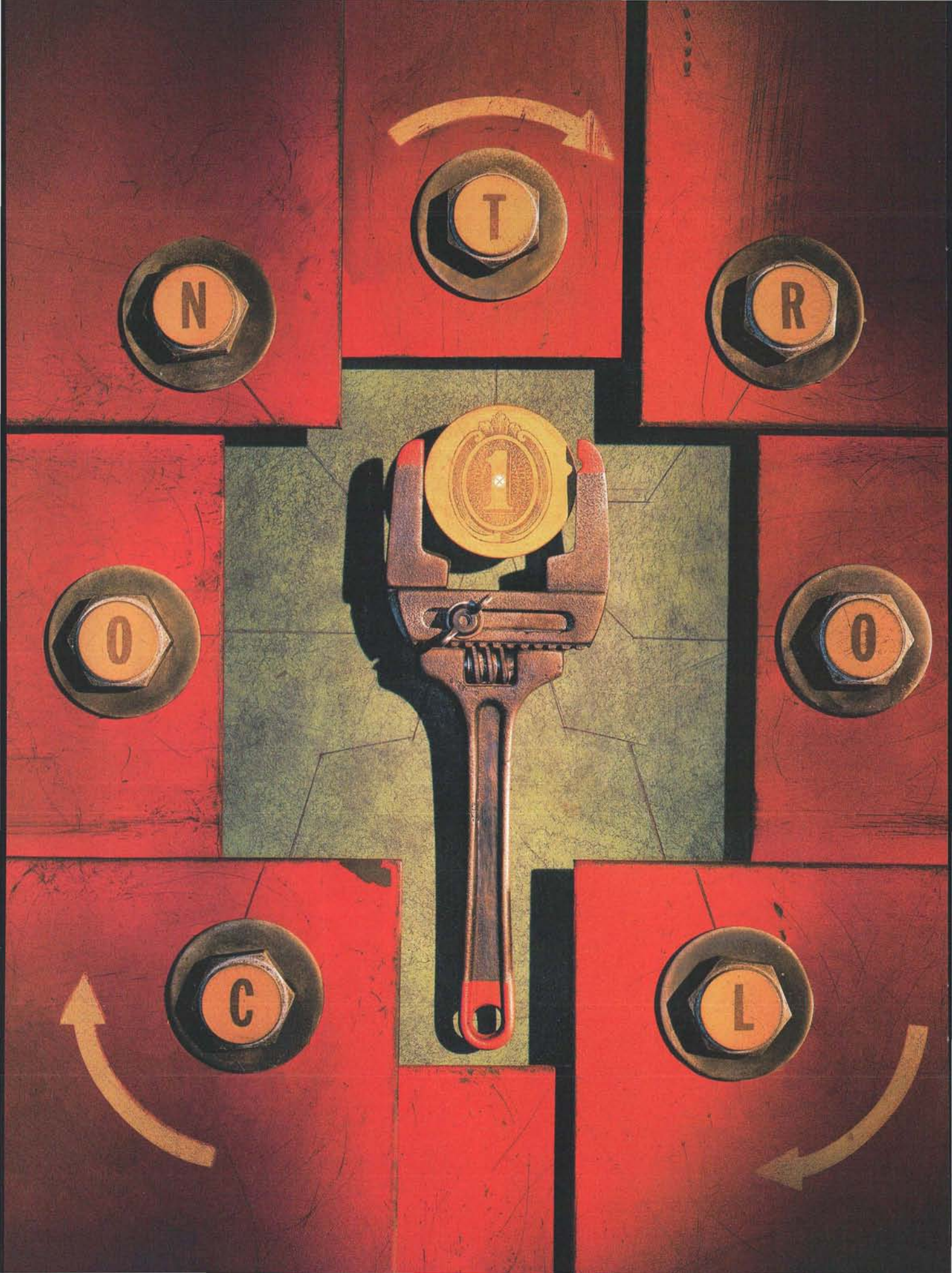
We just added several innovative ways to upgrade your Macintosh®—even more are on the way! Try our Tempo™ Ultra ATA66 PCI host adapter card, our new Tempo RAID66 ATA hardware RAID controller card and our Tango FireWire®/USB combo card. Don't miss our latest additions — the Crescendo™/7200 G3 and G4 processor upgrades. Depend on Sonnet for simply fast Macintosh enhancement products. To learn more, call 1-800-786-6260 or visit our website at:

www.sonnettech.com/mwus

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SIMPLY FAST



WHICH TOOL

SHOULD YOU TRUST TO
MANAGE YOUR MONEY?

Quicken versus the Web

BY JAMES BRADBURY

WHEN IT COMES TO personal-finance software that runs on the Mac, Intuit's Quicken Deluxe 2001 is first—in a field of one.

Intuit finds itself alone in this category partly because the real action in personal-finance applications has moved to the Internet. That's not news to Intuit. Each new version of Quicken has shifted more of the program's functionality to the Web, where Quicken.com has become a leading site for people who want help managing their money.

But Quicken.com doesn't have a monopoly on useful finance tools, and for some purposes, those it offers aren't necessarily the best—which brings up questions: Are Mac users still best served by Quicken 2001? Or can you do the same things for free on the Web? And if you do purchase Quicken 2001 (which, after all, is only a \$60 investment, and a tax-deductible one at that), does it make sense to use that program *and* some of the goodies available on the Net?

Yahoo! Finance - Bank Statement

Welcome, jlebradbury

Accounts [message - add] Portfolios [message - create - add brokerage] Wells Fargo

Wells Fargo - Account Details

Current Balances		Credit Card		Account ID: xxxxxxxxxx0180
Checkings	As of 25-Nov-00 9:45am - Refresh	Date	Description	Amount
Balance	\$2,906.07	Nov 14	PAYPAL 000-000-0000 CA	+\$515.00
Credit Card	xxxxxxx000180	Nov 13	PAYPAL 000-000-0000 CA	+\$5.00
Minimum Required - Hide		Nov 4	WWW*EARTHLINK NET 900-890-6356 CA	+\$56.64
As of 25-Nov-00 9:56am - Refresh		Oct 30	PAYMENT THANK YOU SAN FRANCISCO CA	-\$177.08
Credit Avail.	\$9,397.01	Oct 27	OPEN ROAD BICYCLES SAN FRANCISCO CA	+\$25.99
Wells Fargo	Link In	Out	PHOTOS BY SHUTTERSTOCK.COM 650	

Online Banking Convenience Financial portals can give you a consolidated view of your various bank accounts. Above, YahooFinance has grabbed information about a checking account and a credit card from Wells Fargo (some details are not shown here).

SmartBalance

Select bank account you would like to view activity for: [My Checking]

Account Summary Last Updated 11/12/00

Available bank account balance: \$960.23

Total uncashed Payment transactions: \$43.48

SmartBalance: \$916.83

Uncashed Payment transactions for the last 30 days

Date	Number	Description	Amount
11/11/2000	7024	Water Revenue Bureau	\$43.48

Total uncashed Payment transactions: \$43.48

Cleared bank transactions for the last 30 days

Date	Number	Description	Amount
10/17/2000	7020	Water Revenue Bureau	-\$42.43
10/19/2000		ATM Withdrawal - Alexander Road	\$80.00

Bills and More Paytrust is a comprehensive bill-paying site that provides your online bank-account information through its SmartBalance feature. After all, it's good to make sure you have money in your account before you send off a payment.

To find out, we compared Quicken 2001 with the best tools the Web offers. We looked at five fundamental areas of personal finance: banking, bill paying, investing, retirement planning, and taxes.

Banking

Quicken started out 15 years ago as a banking tool for checkbook balancing and other minor financial tasks, and it's still best known for its transaction-register interface, which has been polished to a user-friendly sheen over the years. There's really nothing comparable online. Entering every financial transaction in a register and then reconciling accounts

at the end of the month is still the best way to monitor and control spending. It also can serve as the foundation for creating a budget (see "Digital Debt Reduction," *How-to*, November 2000). Nevertheless, many people simply aren't willing to invest the necessary time.

If all you want is an easy way to check account and credit card balances, talk to your local bank; most financial institutions offer some form of online banking. Of course, if your credit card and checking accounts are with different banks, you may quickly tire of jumping around from site to site.

If you use multiple financial institutions, consider signing up with a financial portal. The best of them connect to your banks, gather up-to-date information, and present everything in one neat

package—usually for free. My favorite portal for viewing online account information is YahooFinance, which was able to show me specific details of checks that had cleared just days before, something I could not get from Quicken.com. (MSN's MoneyCentral, at www.moneycentral.com, is also good but notoriously Mac-unfriendly. For other Web-site addresses, see "A Personal-Finance Web Tool Kit.") A bonus of using a personal-finance portal is that you are able to read the latest

market news or perhaps check some stock quotes while you're there.

The Bottom Line If you possess the discipline to track the details of your cash flow, Quicken 2001 is still the way to go. But if you just want to know how much money you've got in the bank or owe on plastic, the Web can tell you. Even if you have Quicken 2001, it's worthwhile to connect your accounts to a personal-finance portal for the convenience of being able to check them from anywhere you have access to the Web.

Bill Paying

A major chore, paying bills is also a potential financial minefield: a lost payment can cause you to bounce a check or damage your credit rating. That may be why most people stick with stamps and envelopes. Quicken 2001's online bill-paying capabilities are relatively simple and reliable; however, its

new bill-reminder features are probably more bothersome than useful. And Quicken 2001 doesn't give you the option of having your bills presented to you electronically on the Web, rather than sent by mail.

Some banks let their customers pay bills through the institution's Web site. But if you want the most features possible, consider a dedicated online bill-paying service. Especially if you're out of town frequently, such a service might be worth-



while just for the ability to review all your bills from one spot on the Web. (Imagine being able to see *and* pay your phone bill from an Internet café in Thailand.)

Some merchants, particularly utilities and financial institutions, can already bill you completely electronically. For others, you can have the paper bill redirected to a service that will scan it for you to see, approve, and pay on the Web. Both Quicken.com and Paytrust offer this feature, and you can use it with any bank or brokerage account for which you have check-writing privileges. With Paytrust, you can also get your bills archived on a CD-ROM at the end of the year. Both Quicken.com and Paytrust charge between \$6 and \$10 a month, depending on which features you want.

The Bottom Line If you're tired of writing checks, the best way to pay bills electronically is on the Web, through Quicken.com or Paytrust. Because merchants actually save money with electronic billing, you can count on having better online bill-paying options in the near future.

Investing

Quicken 2001's Portfolio feature will certainly keep close track of your investments—calculating daily values, preparing capital gains reports, and so on. Like tracking your checking and credit card transactions, though, using Quicken 2001's Portfolio requires a significant investment of time and energy. And the more investments you want to track, the more time you'll need to spend entering dividends, stock splits, and interest payments.

If you do a lot of trading, the Quicken 2001 Portfolio feature can

help you track capital gains and losses. But the statements sent by brokers provide all the investment information most people need.

What if you want to know how your portfolio is doing on any given day? Or maybe you have investments with different brokers and would like to see everything in one report instead of on several statements. How about up-to-the-minute analysis of the funds and companies in your portfolio? The Web is an ideal source for this kind

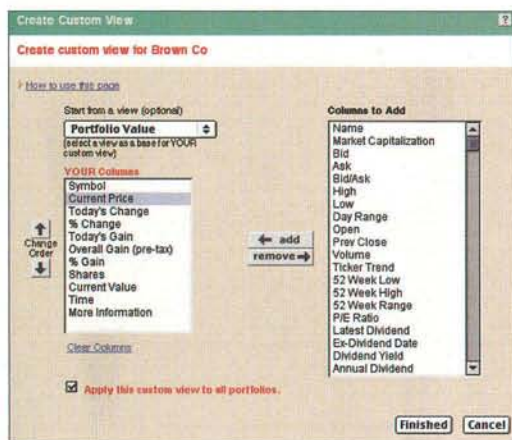
of timely data, and Quicken.com offers the best portfolio features for Mac users. With Quicken 2001, portfolio data you've entered into your Quicken files now can be instantly exported to Quicken.com. Disappointingly, Intuit's recently introduced online Expanded Portfolio tool, which features even more-sophisticated interaction between Quicken 2001 and Quicken.com, is incompatible with Macs.

continues

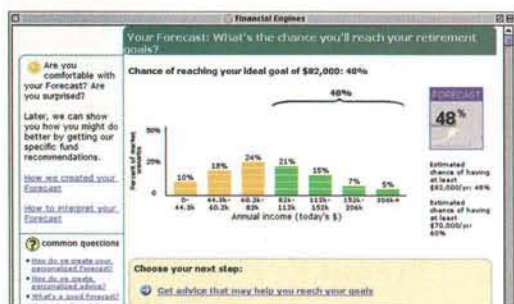
A Personal-Finance Web Tool Kit

Intuit is unlikely to release more than one version of Quicken software each year, but things change a lot faster on the Web. For now, these are some of the best sites for Mac users with personal-finance needs of all kinds. Keep an eye out for new things to come.

COMPANY	WEB ADDRESS	DESCRIPTION
Bankrate.com	www.bankrate.com	An excellent aggregator of financial rates from more than 4,000 institutions.
BigCharts	www.bigcharts.com	A good place to chart stock performance, with an amazing number of interactive options.
Dismal Scientist	www.dismal.com	A first-rate summary of economic news from around the world.
Financial Engines	www.financialengines.com	The pioneer in risk analysis of retirement investments.
FT MarketWatch	www.ftmarketwatch.com	A prime source of financial news.
FundAlarm	www.fundalarm.com	The place to go when you're wondering whether you should ditch your mutual fund.
InsWeb	www.insweb.com	Get insurance quotes on everything from autos to pets.
Market Guide	www.marketguide.com	A good place to look up company fundamentals and get market data.
Morningstar	www.morningstar.com	The place to go when you're trying to pick a mutual fund.
The Motley Fool	www.fool.com	A good place for novice investors to begin: entertaining as well as informative.
Paytrust	www.paytrust.com	Along with Quicken.com, a leading choice for bill paying.
Quicken.com	www.quicken.com	A comprehensive financial portal that tries to do everything and sometimes succeeds.
Quicken Loans	www.quickenloans.com	A step-by-step guide to shopping for a mortgage.
Realtor.com	www.realtor.com	Offers a tutorial on buying a home and the largest collection of online listings.
TaxPlanet.com	www.taxplanet.com	More than you probably want to know about taxes and tax law.
TheStreet.com	www.thestreet.com	Offers stock-market news and commentary, and recently ditched its subscription fee. Worth reading for James Cramer's columns alone.
TurboTax	www.turbotax.com	The first stop for any Mac user who wants to do taxes on the Web.
YahooFinance	http://finance.yahoo.com	A comprehensive financial portal with especially good online-banking features.
Your bank	varies	Before you can access your accounts on the Web, you'll need to sign up for online banking at your bank. If it's not offered, switch banks.



A Full Portfolio Quicken.com includes a feature-rich portfolio-management site with customizable options.



The Count of Monte Carlo Financial Engines was the first consumer Web site to use a Monte Carlo simulation to generate probabilities for your retirement—providing a more realistic view of your risks and needs.

The Bottom Line Frequent traders and investors who relish financial details will find it worthwhile to enter them in Quicken 2001's Portfolio feature. Everyone else can get by with Quicken.com's online portfolio.

Retirement Planning

For the majority of people, the most important investments are the ones they'll someday live off of, such as 401Ks and IRAs. Quicken has a long history of helping with retirement planning; in fact, its primitive Retirement Planning calculator (still there on the Activities menu) is the financial-software equivalent of the tiny, vestigial leg bones found in some whales. Quicken 2001's far

more sophisticated Retirement Planner debuted as a Quicken CD-ROM bonus feature and is now available for free at Quicken.com.

The Retirement Planner feature has two limitations: It's really just a more complicated version of the Retirement Planning calculator—you enter your numbers once and push a button to see whether you're on track for retirement. And it does little to help you figure out exactly how to meet your goals more effectively.

The trend in retirement-planning software—whether for a billionaire or a middle-class family with a couple of 401Ks—is to combine real-time tracking and analysis of retirement investments with personalized advice. The pioneer of this type of planning has been Financial

Engines. Its site offers free retirement-portfolio analysis using a sophisticated real-life probability technique called a Monte Carlo simulation. For \$15 a financial quarter, Financial Engines also will provide specific advice on your portfolio (some companies offer the service to their employees as a benefit).

Intuit responded by adding 401K Advisor to Quicken.com; this tool also uses a Monte Carlo simulation, but with the option of conferring with a human financial advisor (by phone or online) for specific portfolio advice. For now the advice is free, although

Intuit's partner, TeamVest, hopes to convert users to paying clients for automatic monitoring of their accounts. Quicken.com's 401K Advisor was only a few weeks old when I tried it, and it was definitely rough around the edges.

The Bottom Line Retirement planning has moved to the Web for good. Quicken.com's free advice is attractive, but Financial Engines' interface is more mature. This field is changing fast, so check them both out while you can still try them for free.

Taxes

Tax preparation is no one's favorite financial chore, but a computer at least makes it easier. While Quicken 2001 doesn't do taxes, it does integrate with TurboTax for Mac (formerly MacIntax). That integration, however, will be of limited use for finding deductions unless you've entered transactions in excruciating detail. On the other hand, if you use Quicken 2001's Portfolio feature to track your stock transactions, it will handily calculate your capital gains and losses and export them to TurboTax.

For tax year 2000, though, there's no reason to buy TurboTax for Mac (\$30 to \$40, depending on rebates)

April 15, Come She Will Mac users will want to rely on TurboTax for the Web this year, but keep an eye on competing tax-tool sites for 2001.

if you have a fast connection to the Web. Quicken TurboTax for the Web offers the same functionality for free (there's a \$10 charge if you decide to print out your return or file it electronically).

Intuit will likely have some competition for the lucrative tax-software market, but probably not in time to make a difference this year. Rivals such as H&R Block (www.hrblock.com) will need to offer strong incentives if they are to lure Mac users away from tried-and-true TurboTax. As tax deadlines approach, more Web sites should become available. Our advice is to choose TurboTax for the Web in 2000, and then check later this year to see how some of the other sites shaped up.

The Bottom Line Tax tools are bound for the Web. You don't need Quicken 2001 or TurboTax to do your returns—unless you do a lot of securities trading or want to keep close track of potentially deductible expenses.

The Last Word

Quicken 2001 isn't obsolete—especially if you want finely tuned control over your finances and are willing to invest the time to keep your records current. On the other hand, tools for many essential personal-finance tasks—such as retirement planning, bill paying, and tax preparation—have moved to the Web, where new features and capabilities are emerging all the time. Perhaps someday soon Intuit will move *all* of Quicken's features to the Web. If Intuit doesn't, you can bet someone else will. **m**

A former editor of *MacUser* and of *Macworld Online*, JAMES BRADBURY started using Quicken on a Mac SE back when Microsoft stock was considered a risky investment.

Keeping It Safe

BANKING OR CONDUCTING other financial transactions online is like stepping out of your house: there's no way to guarantee your safety (or privacy). Planes do fall from the sky, and banks do have their security breached. But both are rare occurrences. Whether the convenience of online transactions outweighs the additional risk is something that each of us must decide for ourselves. (See

"Macworld's Internet Privacy Guide," July 2000, for an in-depth discussion of online-privacy issues.) You can do a few simple things to minimize risk:

- 1 Avoid giving out your social security number (SSN). A thief who gets a hold of a SSN and name can get a credit card in that name within a matter of minutes (thanks to the Internet) and start spending right away, ruining your credit rating in the process.
- 2 Don't use debit cards for online purchases—they don't have the same protections against liability for fraud that credit cards do. You could lose everything in your account.
- 3 If you spend a lot of money on the Web with credit cards, get a card that offers a safe-shopping guarantee. At most, credit card holders are liable

for the first \$50 of fraud. Look for a guarantee that closes that gap for 100-percent coverage.

- 4 Carefully examine all credit card statements for unfamiliar transactions each month. If you don't recognize a transaction, call your bank. Even better, record credit card purchases in Quicken as you make them, and then reconcile that information with your statement each month.

- 5 At least once a year, request a credit report on yourself. Both Quicken.com and Microsoft's MoneyCentral.com offer credit-report services that consolidate information from the main credit-reporting agencies.

- 6 Go on record with a letter to your bank or other financial institution stating that you do not want your personal information shared or included in marketing databases. You can also call a toll-free number set up by the national credit bureaus—888/567-8688—to opt out of preapproved credit offers. Yes, the credit bureaus sell your information, too.

- 7 If you want to leave minimal traces of buying something, pay with cash.



SHOW YOUR TRUE COLORS

Get Consistent Color Every Time with Photoshop 6
and Your Ink-Jet Printer **BY BRUCE FRASER**

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IT HAPPENS ALL THE TIME. You tweak the image on your monitor until its colors are perfect. But when you print, perfect becomes puzzling as colors shift and your royal blue turns a common navy. An accurate *soft proof*—a reliable on-screen preview of your printed output—would have saved you from swearing.

With a good soft proof, you can more accurately manage color to optimize images for the print process, thereby avoiding surprises, saving paper, and ultimately making a much better print than you can achieve by trial and error. Soft-proofing isn't easy, but Adobe's \$609 Photoshop 6.0 (800/833-6687, www.adobe.com) can help you through the process. While other applications offer soft-proofing tools, none is as accurate and powerful as the latest edition of Photoshop.

You can apply the soft-proofing techniques in this article to any output process, but they're particularly useful for making color-accurate prints on desktop ink-jet printers. Unlike commercial presses, most desktop ink-jet printers produce colors that don't tend to vary over time.



Why Manage Color?

Many people think that the goal of color management is to make their prints look like the images on their monitors. But unless you live someplace where the laws of physics don't apply, that's not possible.

Monitors display many colors that ink on paper can't reproduce, whether the ink is applied by a desktop printer or a commercial press (see "Color Gamut Differences"). Monitors also show a wider dynamic range—the range of brightness from black to white—than printing can achieve. Since color management can't change the physical limitations of your printer to make it match your monitor, you need to make the image on your monitor match the limitations of your printer.

Every color in a Photoshop file is represented by a number. Color management changes those numbers as you send files from scanner to monitor to printer, so that the color you see remains as consistent as the physical limitations of each device allow. This is necessary because RGB and CMYK numbers represent shifting colors—they produce different colors when you send them to differ-

ent devices (they're often called *device-dependent* color models).

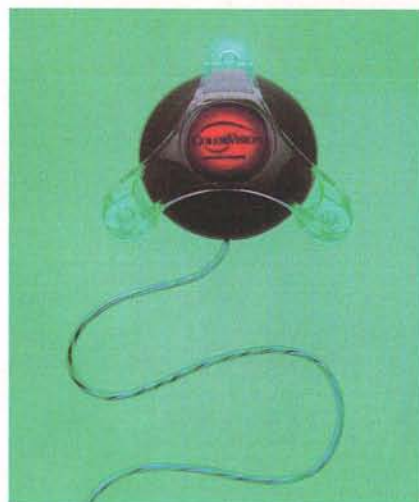
Color management can automatically convert images from your Photoshop color numbers to your printer color numbers, but automatic conversions won't handle every image optimally. When you squeeze a monitor's wide color gamut and dynamic range into a printer's smaller gamut and range, you have to sacrifice what isn't important in the image. You wouldn't make the same compromise for an image of a black cat in a coal cellar as you would for a polar bear in the snow—but automatic conversions do. Great prints still take intelligent human intervention.

STEP 1 MAKE A PROFILE

After you understand what color management can do for you, it's time to put it into action. The accuracy of the whole process depends on the accuracy of your monitor and printer *profiles*. Profiles describe a monitor's or printer's color space with numbers. Color management employs profiles to determine what colors the numbers represent and to calculate the new

set of numbers you'll send to your printer to make it reproduce those colors.

Most of today's vendor-supplied profiles for desktop printers are accurate only if you use the printer vendor's inks and papers, because the printers, ink, and paper are consistent from unit to unit and batch to batch. But monitor profiles are another story. Manufacturing variance, lighting

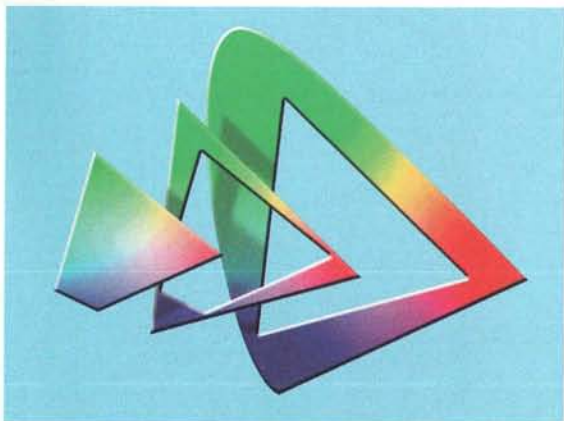


Make a Profile Accurate monitor calibration is the first step toward accurate soft-proofing. You'll get the best results with a calibrator such as this one from ColorVision.

conditions, and user-adjustable brightness and contrast controls conspire to make every monitor unique, and no generic profile will describe your monitor's behavior accurately. If you want an accurate soft proof, you must make a custom profile for your monitor.

Software Calibration Software-only monitor calibrator systems, such as Apple's Default Calibrator (included in Mac OS) and Adobe Gamma (part of Photoshop), are better than nothing. Still, our eyes' ability to adapt to different lighting conditions, although normally a blessing, becomes a curse when we're trying to keep our monitors stable over time.

Hardware Calibration Instrument-based calibration tools, such as ColorVision's \$399 OptiCal (800/554-8688, www.colorcal.com), can keep your monitor in a more consistent state than a software-only visual calibration system ever will. Before you spring for an instrument-based monitor calibrator, though, check to see if your monitor has enough life left to make the investment worthwhile. Here's a simple test:



Color Gamut Differences This image approximates the differences between color gamuts. The smallest figure represents a printer; the middle triangle demonstrates a monitor's wider gamut; and the largest triangle denotes the Lab color space, which comprises all colors in the RGB and CMYK gamuts.

In your normal viewing environment, turn the monitor's contrast all the way up. If the result isn't uncomfortably bright, your monitor is on its last legs and is a likely candidate for replacement.

For detailed information on how to calibrate your monitor, see www.bigpicture.net/main/features/systems-supplies/front_end/monitorcolor991212.html.

STEP 2

CONTROL COLOR CONVERSIONS

Color-managing an image for print should be your final step, so be sure you've made all your other tweaks before you start the soft-proofing process. Then duplicate the image; it can remind you of the way the image looked without soft-proofing, which helps guide your editing for the final print.

Now it's time to open Photoshop's Proof Setup dialog box (View: Proof Setup: Custom) to control color conversions. This is one option-packed dialog box (see "Forest for the Trees"), so a little explanation is in order.

Setup Menu The Setup menu lets you load saved setups. You can open multiple views of the same image (choose View: New View) and apply a different proof setup to each window. You can save setups for the papers you most commonly use and then apply them to different views, to decide whether an image will benefit more from the compressed tone and lesser saturation of a matte paper, or from the higher contrast and greater saturation of a glossy stock.

Profile Menu Choose the vendor-supplied profile for your printer and paper from the Profile menu. Output profiles are paper-specific, so make sure that you choose the

correct one for the paper you're printing on.

Intent Menu This menu lets you choose the *rendering intent* Photoshop will use when converting from the working space to the print simulation. Rendering intents control the way Photoshop maps out-of-gamut colors in an image into the limited color space of an output device. It's best to use Perceptual rendering for images with strong saturated colors and Relative Colorimetric for images without. To see the effect of different rendering intents, select the Preview option and change the rendering intent, or open new views of the image and apply a different rendering intent to each one.

Then pick the one closest to the result you want.

Preserve Color Numbers Option Selecting this option shows what will happen if you send the image to the output device with no color conversion. Mostly, it provides a dramatic illustration of why you need color management—if you select it, your image will suddenly look very different, and almost certainly much worse.

Ink Black and Paper White Options By default, the Ink Black and Paper White options are both not selected; this creates a preview that maps paper white to monitor white and printer black to monitor black. The preview does not show either the paper color, which is usually grayer than the monitor's white, or the

true printer black, which is often lighter than black on the monitor.

Select the Ink Black option to see the actual black you'll get on a print. You might not notice much difference if you're printing to a glossy paper, but with matte paper, checking the Ink Black check box shows you the slightly washed-out black you'll get on the printed page.

Select the Paper White option to see the effect of both the paper color and the dynamic-range compression that takes place going from the working space to print. (When you select Paper White, Photoshop dims the Ink Black check box.)

continues



Control Color Conversions Compare the original image (left) with the color-managed version (right) to see the need for color correction. The printer shifts the image slightly toward blue and diminishes some saturation and contrast.



Make Your Final Edits Use a series of Curves and Hue/Saturation adjustment layers to shift the colors back from blue, increase the saturation, and restore as much of the lost contrast as the printer can reproduce.



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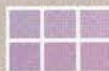
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The most obvious effect you see when you select the Paper White option is the dynamic-range compression—the highlights become darker because the paper isn't as bright as the monitor. Look away from the monitor while selecting Paper White. If you don't see the change taking place, it's easier for your eye to adapt to the new white point.

You can once again use different views of the image to look at the print simulation in different ways. With both the Paper White and Ink Black options not selected, you can gauge what's happening to the saturation. With only the Ink Black option selected, you're able to focus on shadow detail.



TERMS AT A GLANCE

CALIBRATION: The process of making a device handle color consistently.

COLOR GAMUT: The range of colors that a device can display or print.

COLOR MANAGEMENT: Matching colors as closely as possible among different devices, such as scanners, monitors, and printers.

DYNAMIC RANGE: The range of visible light, from shadows to highlights, that a device can capture or reproduce.

PROFILE: The description of a known color space of a monitor or printer, which enables software such as Photoshop to correctly interpret an image's color values.

RENDERING INTENT: Part of Photoshop's Proof Setup dialog box, it controls the way the conversion handles colors the printer can't reproduce.

SOFT PROOF: A reliable on-screen preview of your printed output.

Save Proof Setup

Once you've configured Proof Setup, you can click on the Save button in the Proof Setup dialog box to keep your proof setup for use on other images. If you save the setup in the Proofing folder (System Folder: Application Support: Adobe: Color: Proofing), it will appear on the Proof Setup submenu, and you won't need to revisit the dialog box.

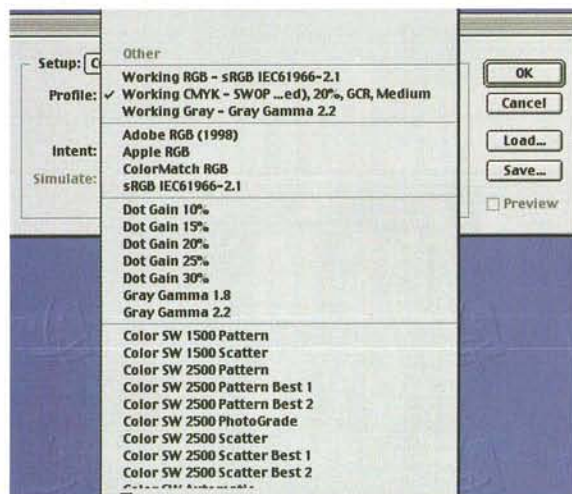
Once you configure these settings properly, you're done with the Proof Setup dialog box, so you can click on OK to close it.

STEP 3

MAKE YOUR FINAL EDITS

Now you're working in an on-screen simulation of how your image will print. You can make final edits to optimize the image for the print process. Typically, you'll make small adjustments to saturation and to the highlight (and perhaps also the shadow) areas. If your paper white is very different from your working-space white, your soft proof will show the color shift that the paper causes, so you might also want to adjust the overall color balance.

A good way to accomplish these edits is to use the Adjustment Layers feature in conjunction with the new Layer Sets feature in Photoshop 6. Store all your optimizations in a layer set named after the print process that they're intended for, and you can easily turn them off when you want to print the image to a different type of paper or printer. Your master image will remain unchanged.



Forest for the Trees Photoshop 6.0's Proof Setup dialog box has a bewildering number of options.

STEP 4

PRINT THE IMAGE

Finally, it's time to print the image. I prefer to open the Print dialog box, choose Document as the Source Space, and set the Output Space and Intent to the profile and intent I used in Proof Setup. This ensures that the conversion that happens at print time is the one you've been simulating. Turn off all color management in the printer driver so you don't get a double correction that will result in a bad print.

The Last Word

Once you've learned the correspondence between the monitor image and the print, you'll be able to nail your prints the first time around, saving time, frustration, and money spent on ink and paper. That's the real goal of color management. **m**

BRUCE FRASER is a coauthor of *Real World Photoshop 6.0* (Peachpit Press, 2001).

More Info: www.creativepro.com/category/home/231.html

When you're ready to dive deeper into color management, Bruce Fraser's articles will show you the way.

Transform Tables in QuarkXPress

Use Custom Stripes to Spruce Up Your Data

Let's face it: a table full of data is not a pretty sight. Yet making tables is a reality for most designers. The challenge is making a table look nice enough that readers won't immediately turn the page but not so wild that it turns their stomachs. One trick is to add a stripe of color behind every other line of text.

A number of tools can help you make tables and alternating tints in QuarkXPress, such as Table2000, from Tableworks (\$200; 425/369-8596, www.tableworks.com), and TableMaker, from Gluon (\$80; 888/458-6698, www.gluon.com).

These extensions are well worth the price if you need to crank out lots of tables. But what if you build tables only occasionally—and not very complex ones, at that? You can use XPress's built-in Tabs feature to design tables and then add alternating tint stripes to make the data easy to read. Some people use the Rule Above feature to make these stripes, but I find this too time-consuming. Instead, I like to use an XPress feature that most people don't associate with tables—Dashes & Stripes—to turn a dash into a series of tinted stripes behind a table. It's easy, fast, and very flexible. **m**

DAVID BLATNER is the author of *The QuarkXPress 4 Book* (Peachpit Press, 1998; www.peachpit.com/blatner).

1

Create a Custom Dash The Dashes feature in QuarkXPress 4 is even more useful than it looks. In this example, I made a custom dash that perfectly matched the size of a table (created in two separate boxes using XPress's Tabs feature).

TABLE 4.2

U.S. FLAG AIRLINE TRAFFIC ENPLANED—
TOTAL LARGE CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS

Year	Total Passengers	Aircraft Departures	Tons of Cargo
1991	428,319,248	6,545,000	4,854,513.1
1992	447,625,988	6,606,609	5,053,677.9
1993	468,313,029	7,193,841	6,383,887.2
1994	508,458,194	7,513,232	6,802,375.2
1995	526,055,483	8,030,530	7,204,478.8
1996	558,183,741	8,204,674	8,047,794.9
1997	448,913,726	6,640,400	5,073,264.9

Original Table

Check the Formats dialog box, and note the amount of space between your table's paragraphs (the Leading value plus the Space Before or Space After value). You'll use this amount later when you configure the dash.

Next select Dashes & Stripes from the Edit menu. In the dialog box that appears, select Dash from the New pop-up menu **A**; doing so opens the Edit Dash dialog box.



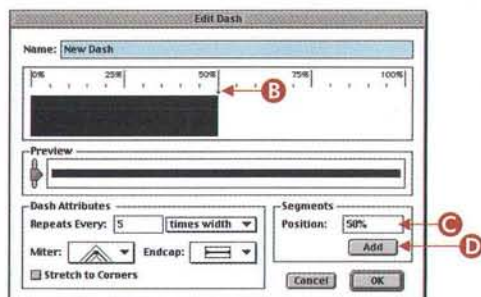
More Info: www.macworld.com/2001/04/howto/quark.html

Learn the basics of making tables with QuarkXPress's Tabs feature.

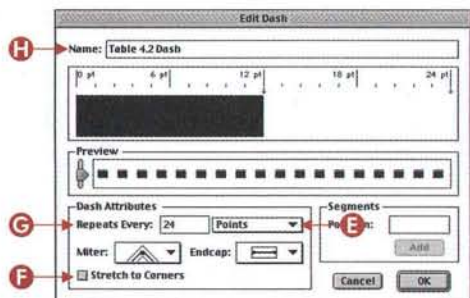
LINK

2

Apply the Dash to Your Line I can hear some of you wondering, "What does a custom dashed line have to do with alternating tint stripes?" The trick is making a line so thick that when you apply your new dash pattern behind the table, the dashes look like rows of color.

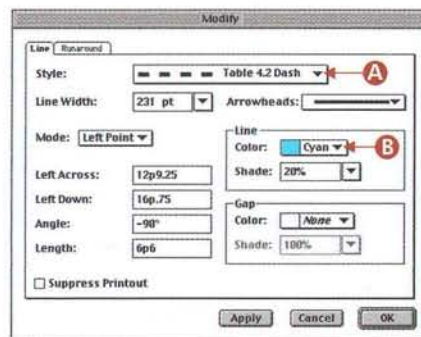


Begin making a simple dash by clicking on the 50% mark in the top section of the dialog box **B** or by typing 50 in the Position field **C** and clicking on the Add button **D**.



The fields in the Dash Attributes portion of this dialog box are important. Select Points from the Repeats Every pop-up menu **E**, and make sure the Stretch To Corners option **F** is not selected (so the dash length won't vary). Double the amount of space between your table's paragraphs and type the result in the Repeats Every field **G**. For instance, if the table rows are 12 points tall, enter 24. Give your dash a name **H**, and click on OK. Click on Save to exit the Dashes & Stripes dialog box.

Select the text box that contains the table, and note how wide it is (the W field in the Measurements palette can tell you at a glance). Now draw a vertical line using one of the line tools (the Orthogonal Line tool is easiest). Make it as tall and as wide (or "thick") as your table.



Select Modify from the Item menu, choose the custom pattern you just created from the Style pop-up menu **A**, and select the color you want for your alternating tint **B**.

When you click on OK, your line will be transformed into dashed lines **C**.



continues

3

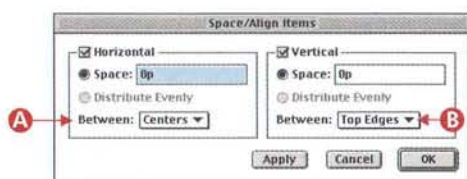
Place the Line Getting the alternating tints to align properly with the table is a minor hassle, but QuarkXPress has the precision tools you need to get it just right.

4

Add Effects Why stop at simple stripes? Why not make those tints really dazzle, with blends or even a picture? Remember that QuarkXPress can convert any type of object into another type; in this example, I converted a dashed line into a Bézier box and then filled it with a blend and a picture.

Use the Bring To Front command (in the Item menu) to put the text box on top of the stripe. Then make sure the background color of your text box is None (set this under the Box tab of the Modify dialog box) so you can see the stripes.

To align the box and the line precisely, select both elements, choose Space/Align from the Item menu, and set the Horizontal position to Centers **A** and the Vertical position to Top Edges **B**, with 0p in the Space value for each. Click on OK.



Next select just the text box and choose Modify from the Item menu. Under the Text tab of the resulting dialog box, type the amount of space between paragraphs and then type *.75 into the First Baseline Offset field. This will move the text down to align properly with the first stripe.

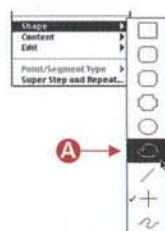
Click on OK, and you have a finished table with tints in the right place. The great thing about this technique is that if your table gets longer or shorter, you can simply lengthen or shorten the line.

TABLE 4.2

U.S. FLAG AIRLINE TRAFFIC ENPLANED—
TOTAL LARGE CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS

Year	Total Passengers	Aircraft Departures	Tons of Cargo
1991	428,319,248	6,545,000	4,854,513.1
1992	447,625,988	6,606,609	5,053,677.9
1993	468,313,029	7,193,841	6,383,887.2
1994	508,458,194	7,513,232	6,802,375.2
1995	526,055,483	8,030,530	7,204,478.8
1996	558,183,741	8,204,674	8,047,794.9
1997	448,913,726	6,640,400	5,073,264.9

Finished Table



First, check that the line is just the right size for your table; once the line is a box, you can't change its attributes. To convert the line, select it and choose the Bézier box shape **A** from the Item menu's Shape submenu. There's a problem in XPress that causes the resulting box to offset slightly when you do this, so you may need to realign the objects using the Space/Align feature (as in step 3).

TABLE 4.2

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1994	508,458,194	7,513,232	6,802,375.2
1995	526,055,483	8,030,530	7,204,478.8
1996	558,183,741	8,204,674	8,047,794.9
1997	448,913,726	6,640,400	5,073,264.9

Table with a Blend

Once you have a box instead of a line, use the Colors palette to fill it with a blend.

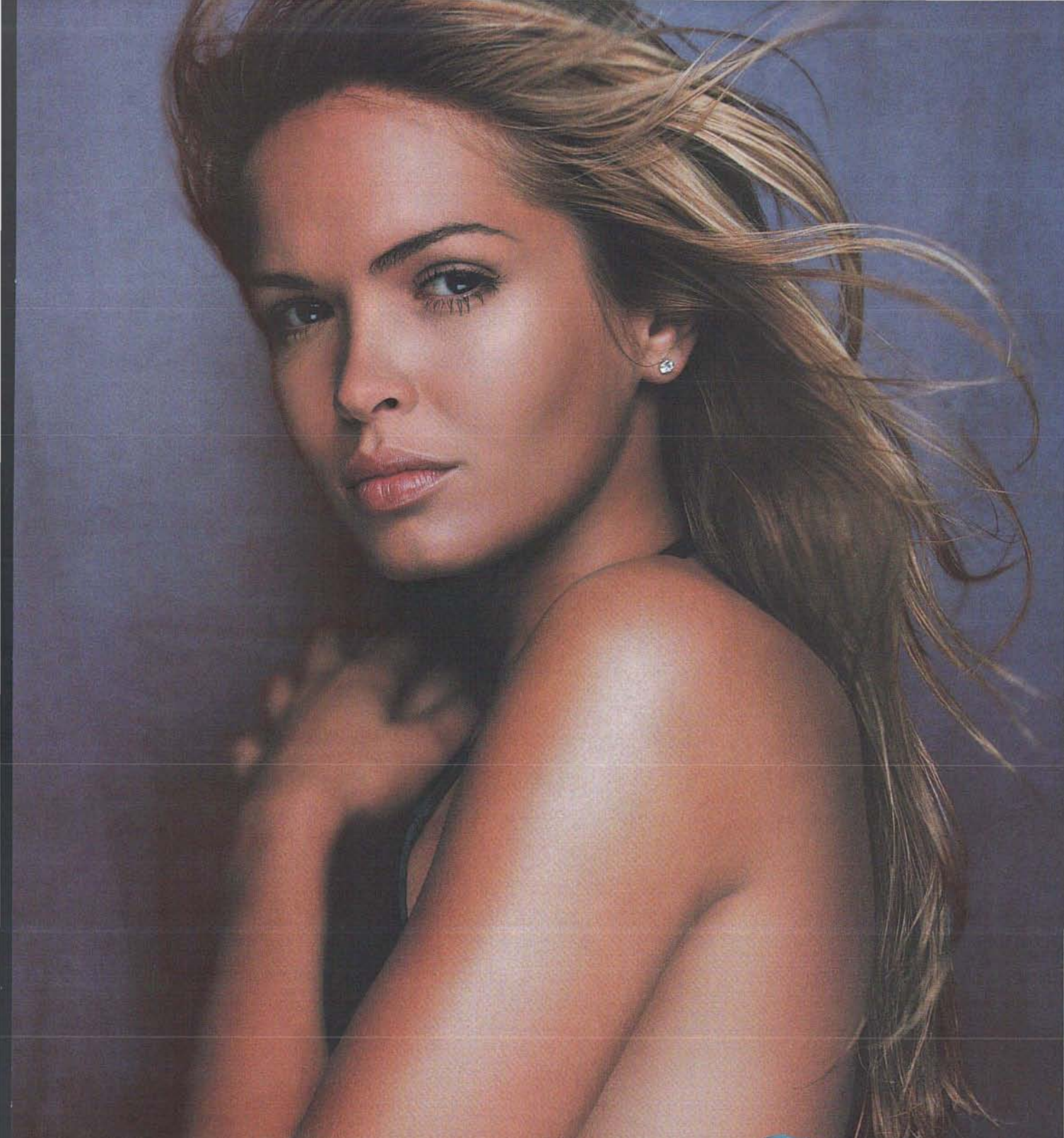
TABLE 4.2

U.S. FLAG AIRLINE TRAFFIC ENPLANED—
TOTAL LARGE CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS

Year	Total Passengers	Aircraft Departures	Tons of Cargo
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1994	508,458,194	7,513,232	6,802,375.2
1995	526,055,483	8,030,530	7,204,478.8
1996	558,183,741	8,204,674	8,047,794.9
1997	448,913,726	6,640,400	5,073,264.9

Table with a Picture

Or you can fill it with a picture: select Picture from the Content submenu (in the Item menu) and then put a graphic in the box.



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BBEdit 6.0 Shortcuts

Automate Repetitious Coding with These Tips

As anyone who writes HTML knows, routine coding tasks—arduous or not—can rob you of a lot of time you'd rather spend on more-important stuff. Wouldn't it be great if you could make a three-click process that handled drudgery such as converting tabular data from a Microsoft Excel spreadsheet to an HTML table? Well, you can. Straight out of the box, Bare Bones Software's BBEEdit 6.0 (www.barebones.com) makes HTML coding easy. But we'll show you how to take it one step further. Using Glossary items and AppleScripts, you can automate BBEEdit and dramatically decrease the time you spend on mindless, repetitive tasks.

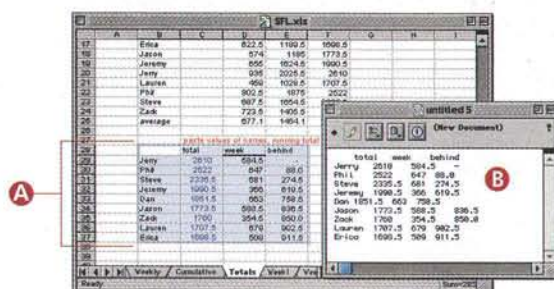
Glossary items are fragments of frequently used text that you can insert quickly into your document from BBEEdit's Glossary palette. AppleScripts let you control just about every function of BBEEdit—and in BBEEdit 6.0, you can run scripts made in Script Editor with just a few clicks. If you combine the two tools, you can create intelligent Glossary items that will change the contents of your document in a flash.

We'll show you how to use a Glossary item and a script in tandem to turn Excel data—or any tab-delimited content—into an HTML table in no time. But this is only one example of how you can make coding time fly by: these techniques can be applied to almost anything you do frequently using BBEEdit 6.0. **m**

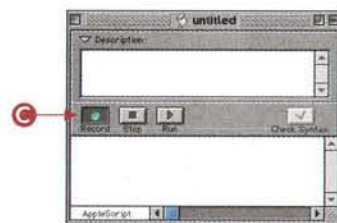
JASON SNELL is the editor of Macworld.com and has been coding Web pages since 1992.

Set Up for Script-Making First you'll need to cut and paste the relevant part of your Excel spreadsheet into BBEEdit and set the Script Editor to record your script.

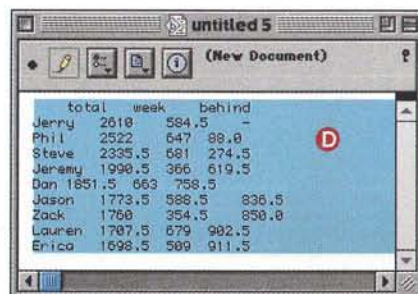
In Excel, select the data (as I've done here **A**) that you want to put into the HTML table, choose Copy from the Edit menu (or press ⌘-C), and switch to BBEEdit 6.0. Create a new BBEEdit document and paste in the data **B**.



The Excel data will translate as tab-delimited text in BBEEdit. (An invisible tab character appears after the contents of each cell, and an invisible carriage return appears at the end of each row. Later, you will change this formatting into HTML.)



Launch Script Editor and press the Record button **C**.



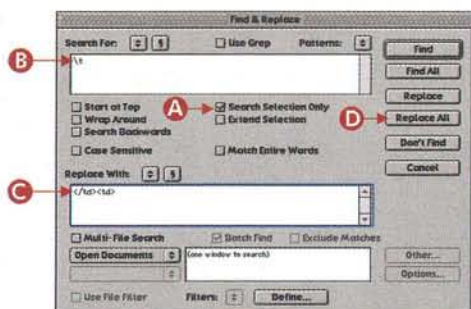
Select the pasted text in BBEEdit **D**, and choose Find & Replace from the Search menu.

2

Record Your Script Convert the text to HTML table code while recording your script. Remember that Script Editor is recording every move you make, so be sure you've rehearsed all the steps. If you make a mistake, start over.

3

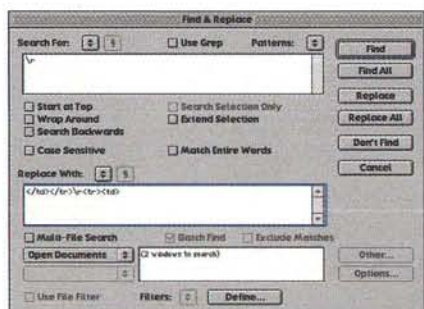
Modify and Save Your Script Now you must put a line in the script that will tell the Glossary item which text to turn into a table.



In the Find & Replace dialog box, choose Search Selection Only **A**, so that just your pasted-in table will be affected. Make sure none of the other boxes is checked.

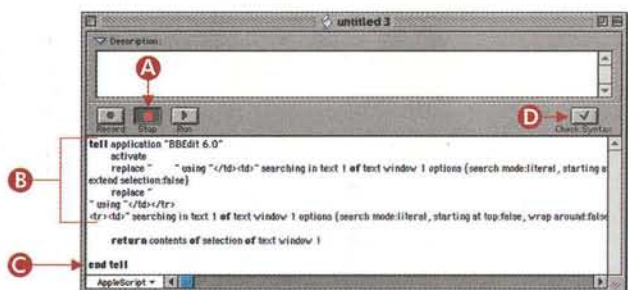
Because there's a tab (referred to within BBEdit's Find & Replace window as `\t`) between each block of data, tell BBEdit to search for all those tabs by typing `\t` in the Search For field **B**, and to replace them with closing and opening HTML table tags by typing `</td><td>` in the Replace With field **C**.

Click on Replace All **D**.



Indicate the end of one table row and the beginning of the next. Search for a carriage return by typing `\r` in the Search For field, and in the Replace With field enter the HTML equivalent: `</td></tr>\r<tr><td>` (for closing the last cell in the row and the first cell of the next row, with a carriage return to make your HTML code more readable). Click on Replace All.

Switch back to Script Editor and click on the Stop button **A**. In the Script window, you'll discover an AppleScript that will elicit the very steps you've just performed **B**.



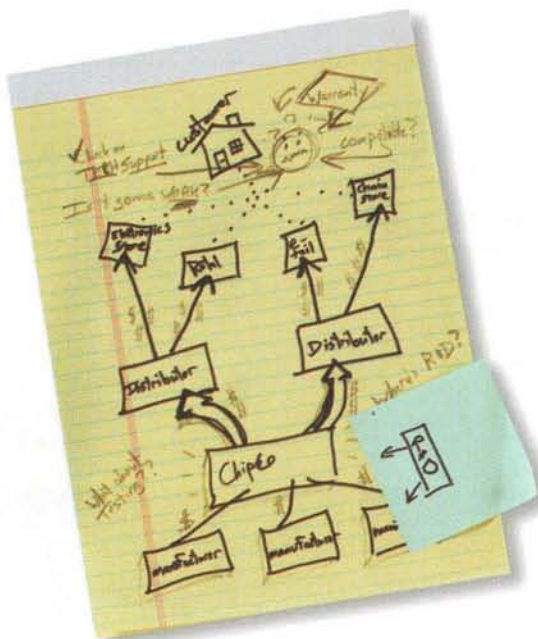
Above the final **end tell** line of the script **C**, insert this line: **return contents of selection of text window 1**

Click on the Check Syntax button **D**, and then choose Save from the File menu.



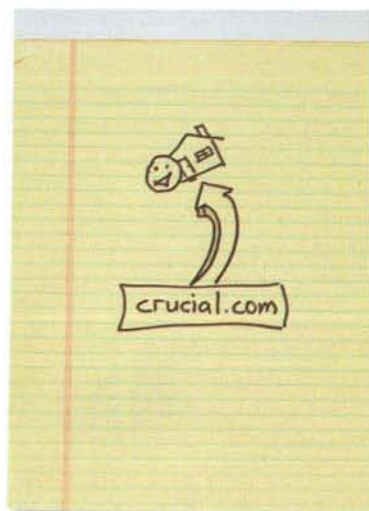
Name your script **E**, and save it in Compiled Script format **F**, in this location: BBEdit 6.0: BBEdit Support: Glossary Items: HTML Glossary.html **G**.

continues



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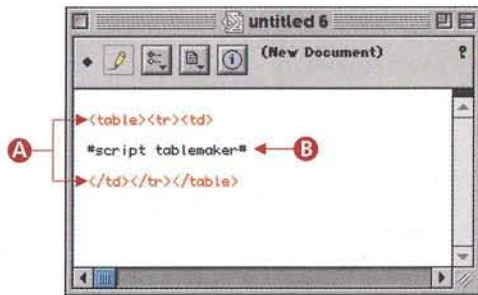
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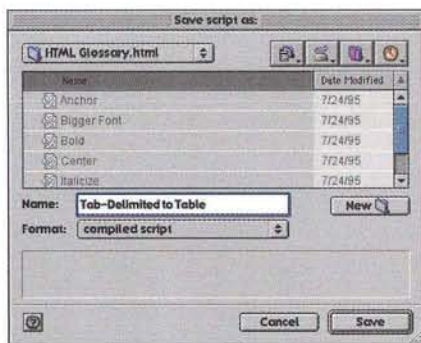
4

Create a Glossary Item Now set up a Glossary item that will generate the top and bottom of our table, and will enable the script to convert the Excel data into HTML table format.



Create a new BBEdit document (⌘-N). Enter the HTML code to create the top and bottom of the table **A**.

To run a script from within a BBEdit Glossary item, type: **#script [name of script]#** **B**.



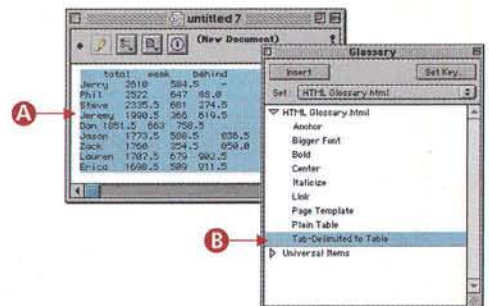
Save this Glossary item in the same place you saved your script in step 3. Here the item is named "Tab-Delimited to Table."

5

Try Out Your New Glossary Item

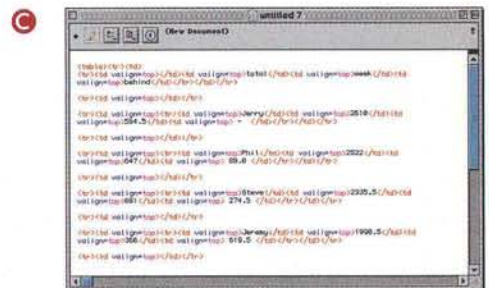
It's time to put your combination to use—it will save you a lot of time that you'd otherwise spend recoding HTML tables.

Copy a range of cells in an Excel spreadsheet and paste them into a BBEdit file (as you did in step 1).

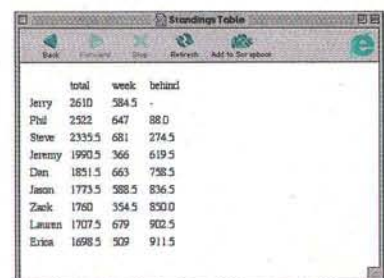


Select the pasted content **A**. In the Glossary window, double-click on the item you created in step 4 (here Tab-Delimited To Table) **B**.

Your script and Glossary item will run, and the tab-delimited text you copied from Excel will be replaced with basic HTML table code **C**.



Save your file with a name that ends in .html. Open it in your Web browser, and you'll see that you've quickly created a valid HTML table with just two clicks.



More Info: www.macworld.com/1998/11/create/4549.html

Use advanced BBEdit find-and-replace features to remake your HTML code in a hurry.

LINK

How-to

BBEdit 6.0

Make Labels Effortlessly

Microsoft Office 2001 Saves You Time and Trouble

We all love a party—unless, of course, we're stuck with the tedious chore of addressing and mailing several dozen invitations. Now you can avoid writer's cramp by enlisting Microsoft Office 2001 (800/426-9400, www.microsoft.com) to create address labels for you. Although Office can't lick stamps or put your invitations in the mail, it can make the laborious and time-consuming task of creating labels much easier and faster.

For this project, you'll use Office's new Address Book (part of Entourage), Word, sheets of blank printer-friendly address labels, and a printer. Before you start, enter the names and addresses of your guests in Entourage's Address Book (see "Organize with Entourage," *How-to*, January 2001). If you currently use another e-mail program or contact manager, such as Netscape Communicator or Now Contact, you can import this information into Entourage's Address Book easily.

Once your Address Book is complete and up-to-date, making labels is a breeze—whether you're throwing a party for 12 or 120. The time you save will be more time for you to enjoy planning your party. **m**

ROBERT CORRELL is a coauthor of *Running Microsoft Office 2001 for Mac* (Microsoft Press, 2001).

1

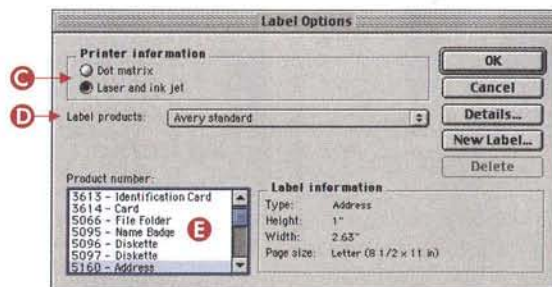
Configure Your Labels Once you've entered your contacts in Entourage's Address Book and are satisfied that you haven't left out anyone you want to invite, you're ready to launch Word and begin formatting the address labels.

In a blank Word document, go to the Tools menu and select Data Merge Manager. To correctly format the document for your labels, select the Create menu **A** and choose Labels **B** from the pop-up menu.



In the Label Options dialog box, specify the type of printer you have **C**.

To create the correct margins and layout for your brand of labels, find and select your labels' manufacturer from the Label Products pop-up menu **D**. Then select the exact type of label you have from the Product Number list **E**. This information is listed on the label packaging.



TIP: If you can't find your manufacturer, choose Other from the Label Products pop-up menu for additional options. If you still can't find it, create your own label layout (from measurements you've taken) by clicking on the New Label button.

When you're finished, click on OK.

2

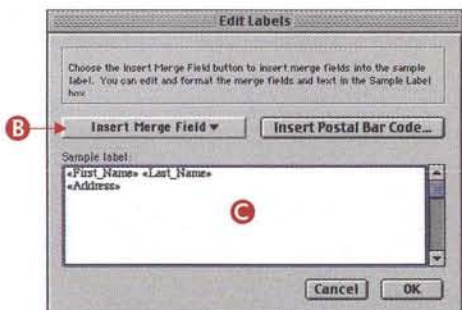
Import Your Contacts After you format the main document and choose a label type, you're ready to import contact information into Word from your Address Book.

3

Preview and Print Now that you've specified a label type, imported information from the Address Book, and formatted the information for printing, you can preview your labels and print them out.



To tell Word where to find the data for your labels, open the Data Source menu, click on Get Data, and select Office Address Book **A** from the pop-up menu that appears.



The Edit Labels dialog box lets you specify which data fields to include on your label and how they should be formatted. To add a new data field, such as Last Name, open the Insert Merge Field pop-up menu **B** and select the appropriate field.

In the Sample Label window **C**, format the data exactly as you want it printed, including spaces, returns, and any other punctuation. Click on OK when you're done.

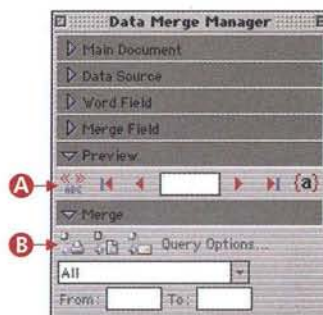
At this point, your main document contains placeholders for your label data, with the proper layout.

More Info: www.macworld.com/subject/msoffice

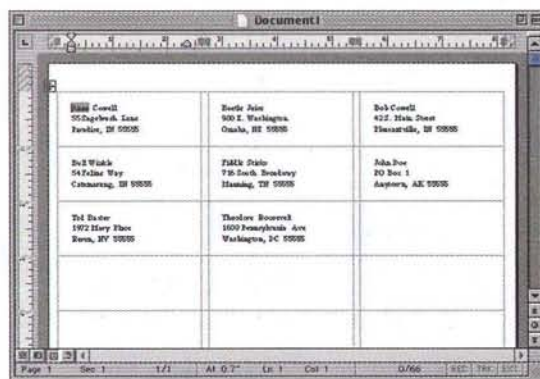
Get the latest Office 2001 news, tips, and discussion.

LINK

To preview your finished labels, return to the Data Merge Manager and click on the View Merged Data button **A** in the Preview section.



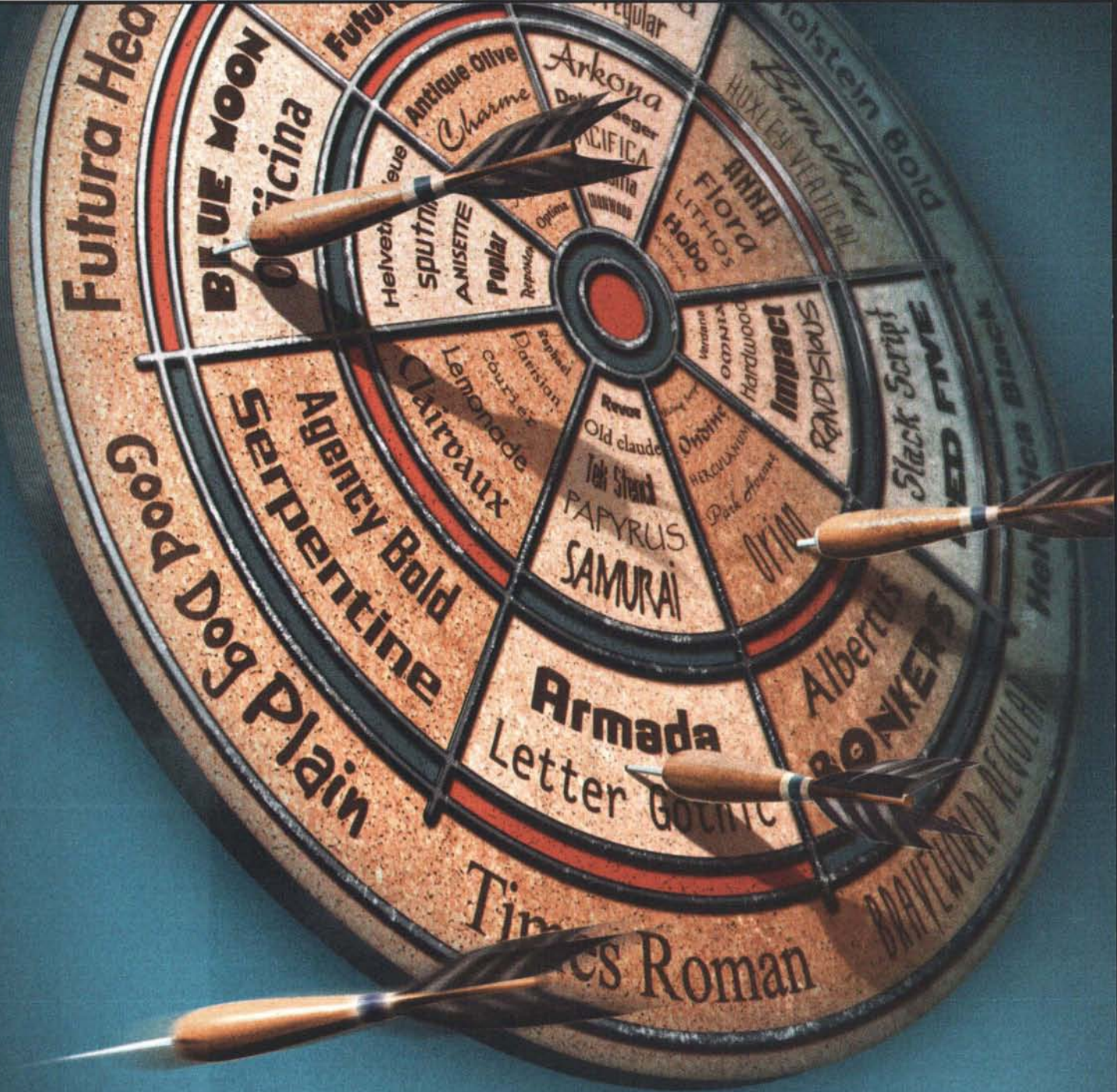
Word replaces the label placeholders with the information from your Address Book. Check the document for errors.



If everything looks fine, you're ready to print. To avoid wasting labels, make a test print on plain paper. Place the test print over a label sheet and hold them up to a light to check margins. If they're drastically off, you probably chose the wrong label in step 1.

Insert the labels in your printer's paper tray and click on the Merge To Printer button **B** under the Merge drop-down menu.

The final result is a professional-looking set of labels ready to be placed on envelopes.



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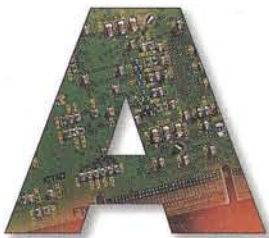
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sage once said, "Give a man a peanut-butter-and-pickle sandwich, and you feed him for a day. Teach a man that such a combination is quite tasty and digestible, and you feed him for a lifetime." Because I believe in the importance of seeing the forest *and* the trees, I've decided to fashion a column with answers more transcendental than specific—an *Über-Mac 911*, if you will. With that in mind,

we'll discuss the broad issues of USB, preference-file corruption, and multiple POP e-mail accounts.

USB Woes

Dennis, a Mac 911 Forum visitor, writes that when he inserts a Zip disk into the drive attached to his Belkin-powered four-port USB hub—which, in turn, is tethered to his G4 Cube—his Mac locks up. He adds that his arsenal of USB devices includes a color printer, a scanner, the Cube's speakers, and the Apple Pro Keyboard.

"Whuh-oh!" those of you familiar with the Cube interrupt, "This set-up will never work, because the Cube has just two USB ports and Apple recommends that the Pro Keyboard and speakers each use one of them. A hub will never fly in such a configuration!"

Fortunately, despite Apple's suggestion to the contrary, if you have a USB hub that provides enough juice—and the Belkin device is such a hub—you can plug it into one of the Cube's USB ports and then attach the Apple Pro Keyboard to it, with no ill effects. But if your hub is underpowered, the keyboard won't work properly in this configuration. And one of the few ways to find out if your hub is underpowered—short of using a voltage meter—is to plug your Cube's keyboard into the hub and see if it fails.

While this piece of information is undoubtedly a healing balm to Dennis's troubled soul, it doesn't explain why his Cube locks up upon insertion of a Zip disk. To under-

stand why this happens, you must disregard what you may have heard and accept that USB ain't the trouble-free standard it's cracked up to be. I know, I know—USB has been touted as the heady solution that will end SCSI voodoo forever . . . no longer must you worry about which device is plugged in where . . . USB is plug-and-play done right. . . .

Horse pucky.

A chain of USB devices can be just as finicky as a SCSI chain. This finickiness, however, is generally caused by not-quite-right USB drivers—supplied either by Apple or by a maker of USB peripherals. Given this fact, the first step to troubleshooting a problem such as Dennis's is to download and install the latest drivers for each USB device. I'd suggest the Zip drivers in Iomega's IomegaWare package, which can be downloaded here: www.iomega.com/software/featured/iomegawaremac.html.

Should updated drivers fail to do the trick, try unplugging USB peripherals. It's not uncommon for a Zip drive to freeze a Mac when a USB Zip drive and a printer are both attached to the Mac at start-up. If you find this to be the source of the conflict, you can generally work around it by unplugging one device before booting the Mac and then plugging that device back in once the Mac is up and running. An ugly solution, granted, but until rock-solid USB

continues

drivers come to the Mac, we're going to have to put up with this kind of inconvenience.

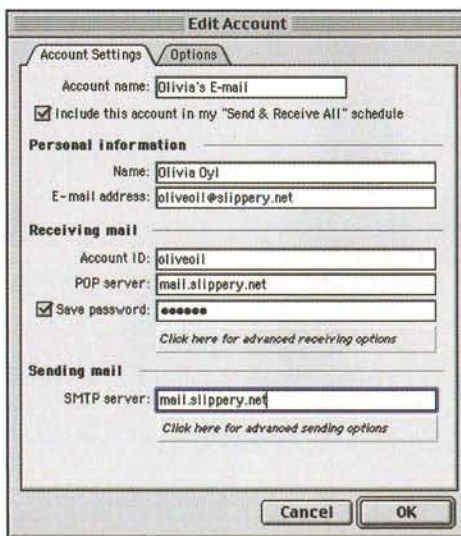
A Preference for Corruption

Another no-last-name forum guest, Ann, fears that her Mac is haunted. The choices for changing her monitor resolution have vanished—where once resolutions of 800 by 600 and 1,024 by 768 pixels appeared, only 640 by 480 remains.

Unless Ann's monitor is leaching a sulfurous yellow ectoplasm, there's little chance her system is haunted. Likelier is that the Monitors Preferences file (System Folder: Preferences: Monitor Preferences) is corrupt. To repair this problem, move the file to another location (don't trash it yet, in case something goes wrong and you want to return it to its original stomping grounds) and restart your Mac. A new Monitors Preferences file will be created and your resolution choices should return. If everything seems to be ticking along all right with the new preference file in place, feel free to trash the old one.

Because this particular column is devoted to meta-solutions, I'll say a few words about preference-file corruption. It's a simple fact of computing that preference files occasionally go bad, causing odd behavior.

Therefore, if you notice that something has gone inexplicably wrong where all was once right as rain, evicting a preference file or two isn't a bad idea. For example, I repaired my misbehaving AppleCD Audio Player by removing the AppleCD Audio Player Prefs and AppleCD Player Preferences files. And when my Mac was generally misbehaving and disk-repair utilities couldn't effect a solu-



Accounting Trick To check a friend's e-mail, create a new account in Outlook Express.

Helpful though you are, Jeff, you must take a broader view. While you can configure the Remote Access control panel to dial into your friend's ISP, it's unnecessary. Just log on to your own ISP and flit from one POP account to another, as a hummingbird from flower to flower. To do so, in your e-mail client create a new account that contains your friend's settings and download her mail. Here's how it works in Microsoft Outlook Express (OE):

Select Accounts from OE's Tools menu. Click on the New button, make sure POP is selected in the Account Type pop-up menu, and click on OK. Create a name for the account and fill in your friend's user information (see "Accounting Trick"). That information will include her user name, password, the name of her ISP's POP server (mail.babybell.com, for example), and the name of the SMTP server. When you next log on to your ISP, just select this account and pick up your friend's mail. Note, however, that when you download her mail, it will go into your in-box unless you've created a filter to divert it to its own folder. (If you don't know how to do this, drop a message in the Mac 911 Forum and I'll explain all.) **m**

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Shareware and freeware mentioned in *Mac 911* are available from ZDNet's Macdownload.com (www.macdownload.com).

Tip of the Month

If you're on a Web site where the Back button and menu command have been disabled, but you want to go back to the previous site, just type **javascript:back()** into the address field. Unfortunately, this works only in Netscape Navigator, not in other browsers.

Andrew Johnson

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Dreamweaver 4 Fireworks 4 Studio

Bundle Offers Smooth Workflow for Building Web Graphics and Sites

DREAMWEAVER 4 FIREWORKS 4 STUDIO

Overall: ★★★★★ 1/2

Dreamweaver 4: ★★★★★ 1/2

Fireworks 4: ★★★★★ 1/2;

Pros: Superb integration of code and visual editing in Dreamweaver; good reference material for Web coders; excellent object sharing between programs; terrific pop-up-menu design tool in Fireworks.

Cons: Dreamweaver doesn't automatically produce standards-compliant code; Fireworks' performance seems a bit slow.

List price: \$449

Company: Macromedia, 800/457-1774, www.macromedia.com

MACWORLD'S BUYING ADVICE:

Individually, Dreamweaver 4 and Fireworks 4 are powerhouse programs that define the state of the art for WYSIWYG Web editing and Web image creation. Together, they make an unbeatable combination for Web professionals.



SCOTT LAUMANN

Like most Web designers, you may not have the luxury of a separate art department to create your images; you have to create them yourself and then insert them into your Web pages. For just such users, Macromedia has updated its acclaimed Web authoring and Web graphics tools and bundled them into Dreamweaver 4 Fireworks 4 Studio. For less money than you'd spend buying both products separately, you can easily change from your artist hat to your Web-designer hat and back again, saving valuable production time as you move images and HTML between applications.

Flash Comes to Fireworks 4

Many features added in Fireworks 4 are designed to lessen the need for other programs, even those from Macromedia. With the new

Live Animation feature, for example, you can create simple animations that previously would have required Macromedia's Flash. After selecting the object you want to animate, you can set the amount of scaling, fading, and rotation for the animation, as well as its length in frames. Fireworks does the tweening for you, and the path of the animation appears in your document as a straight line with a string of dots on it, each representing a frame. You can move the line's endpoints to position the animation, though you can't create a curved path by moving the midpoints.

One of Fireworks' most useful new features is selective JPEG compression. This lets you compress masked portions of an image more or less than the rest of the image—

perfect for crunching a file's size while maintaining clarity in more-important parts of the image.

If you've ever had to make the same changes to many graphics files, you'll enjoy the new Batch Process Wizard. It leads you through the stages of choosing files for processing, selecting the processing steps, and picking the destination folder for the modified files. (You can also save a batch process as a scriptlet to share with coworkers. The next time you want to use the scriptlet, just drag it and the files you want to process onto the Fireworks application icon.) Fireworks' batch-processing capabilities won't fully replace Equilibrium's DeBabelizer in your arsenal, but it can handle many day-to-day needs.

Fireworks 4's improved import and export routines enhance its compatibility with Adobe Photoshop. You are now able to open and save Photoshop 5.5 files, with layers and masks translating correctly between the two programs. Fireworks can also open Photoshop 6 files, but (as in Photoshop 5.5) text will lose its editability.

Better Behaviors

Creating rollovers in Fireworks 4 is much easier than in previous versions; it's no longer a confusing process of slicing, layering, and creating new frames. The new Drag and Drop Rollover feature allows you to begin rollovers by dragging the behavior handle (which every slice now contains) onto the target. The Swap Image dialog box then opens so you can assign the layer for the other rollover state. Slices attached via behaviors to other slices are connected in the Web Layer view by blue lines.

Creating pop-up navigation menus with JavaScript is a great technique, but the coding has proved dif-

ficult or impossible for DHTML newbies. Fireworks' new Pop Up Menu Editor tool is a simple wizard that walks you through the process—without distracting code. You set the text and the URL targets of the pop-up menu choices (this text is in HTML, so you can change it easily in Dreamweaver) and then specify the color and style of the images for the background of the menu. If you like, you can indent menu choices to create hierarchical menus. Unfortunately, custom font sets created in Dreamweaver aren't shared with Fireworks; if you want your font sets on pop-up menus, you need to do some hand-coding in JavaScript when you bring the menus into Dreamweaver.

Fireworks' increased power comes at a cost of speed. Even on a 400MHz Power Mac G4, the program often felt a bit sluggish, especially when opening or previewing documents. For me, the performance hit falls into the "noticeable" rather than "annoying" category, but some type-A users might find the slowdown bothersome.

The Web Editor of Your Dreams

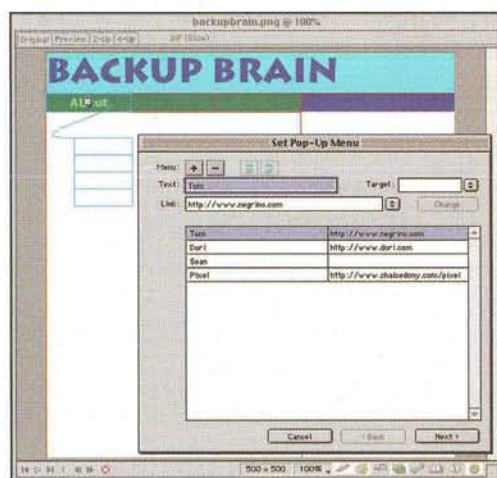
Probably the first change you'll notice in Dreamweaver is the addi-

tion of a tool bar at the top of the document window. You can use this tool bar to change the document's title, preview the document in a browser, or transfer it to or from the remote site via FTP. A new Reference button calls up context-sensitive information, licensed from O'Reilly & Associates, on the proper use of HTML, CSS, or JavaScript. This is great information, presented exactly when and how you need it.

Since its introduction, Dreamweaver's developers have experimented with different ways to display both the layout of a page and its underlying code. Previous versions required you to switch from visual to code mode or to open a separate code window. Dreamweaver 4's new Code And Design view, available from the document tool bar, splits the document window into two panes, with HTML in the top pane and the graphic-design view below. Selecting an item in one view highlights the corresponding representation in the other view. There's still an HTML view for codeheads, who will also enjoy the new automatic syntax coloring and indenting.

Dreamweaver's new Asset panel brings together all of your site's media assets so you can manage them more easily. The Asset panel groups images; colors; external URLs; Shockwave, Flash, and QuickTime files; and scripts, templates, and library items. When you select an asset from the list, the Asset panel displays a preview of the item. You can add frequently used assets to a Favorites list and organize the list into folders, with nicknames for the assets. Best of

continues



Menus Made Easy DHTML pop-up menus load quickly and make your site easier to navigate, but they can be hard to code. Fireworks 4's Pop Up Menu Editor tool leads you through the process painlessly.

all, you're able to drag and drop assets directly from the Asset panel to the document window.

Adding a Little Flash

Macromedia's Flash is a popular vector-animation tool, and most browsers support its SWF file format, with the help of a plug-in. Until this release, the only way to create Flash animations was to use Flash (or Adobe Live Motion, which also can save animations in Flash format). But Dreamweaver 4's new Insert Flash Button feature lets you create animated buttons in SWF format. Macromedia provides dozens of button templates, to which you add only the button text and the link for the destination page. If you need more templates, you can build them in Flash and import them into Dreamweaver, or download them from Macromedia's Dreamweaver Exchange at www.macromedia.com/exchange/dreamweaver/.

With the new Insert Flash Text feature, you can use vector text in Flash format instead of text graphics in GIF or JPEG format; this lets you scale text while maintaining letter quality. You can also add JavaScript-style rollover effects to Flash text or buttons. Of course,

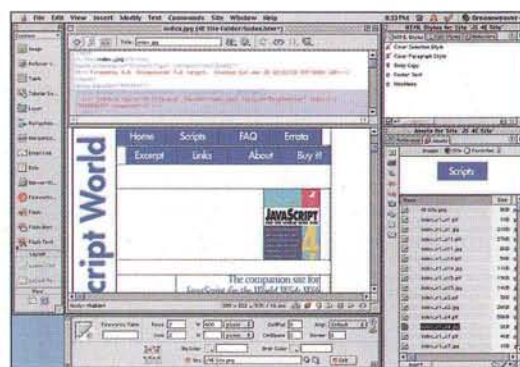
not all browsers can display Flash files, so you should check that the Flash player is present, using the Check Plugin JavaScript Behavior utility that comes with Dreamweaver.

There is one fly in Dreamweaver 4's ointment: the Web pages it creates still aren't fully compliant with important Web standards such as HTML 4, CSS1, and DOM 1.0; nor does the program support XHTML, unlike Adobe GoLive 5.

Go, Team!

When several designers and coders work on a site, you need a traffic cop to make sure the site stays organized and people don't get in each other's way. Dreamweaver 2 had file check-in and checkout capabilities. Dreamweaver 3 introduced Design Notes, XML-based documents that tracked the status of and comments for each file in your site. Dreamweaver 4 catches up to GoLive 5 by implementing WebDAV, an industry-standard protocol that lets team members check pages in and out of the WebDAV server, keep audit trails of site changes, and stage sites before

uploading them to production servers. And Dreamweaver surpasses GoLive by adding support for Microsoft's Visual SourceSafe, another widely used version-control system. When you connect to a Visual SourceSafe or WebDAV server, Dreamweaver's Site Window becomes the client window for the server. Unfortunately, Visual SourceSafe and WebDAV servers do not run under Mac OS 9 (however, WebDAV implementations have been announced for Mac OS X).

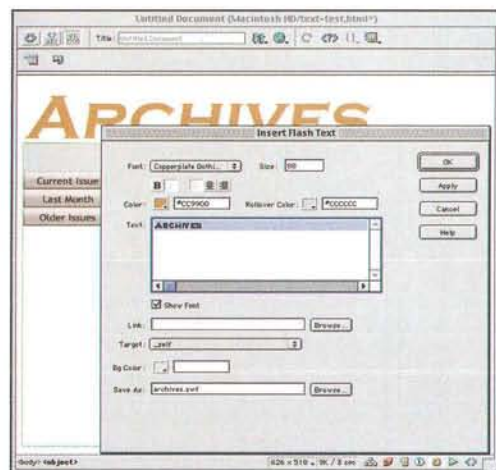


Working Hand in Hand Dreamweaver's Roundtrip Table Editing tool allows you to add rollovers and other behaviors to exported Fireworks tables, yet still maintain the ability to edit the table's images back in Fireworks, without messing up either HTML or JavaScript.

Suite Stuff

Besides enhancing the individual programs in the Studio, Macromedia has significantly improved how the programs work together. Dreamweaver and Fireworks, along with Dreamweaver UltraDev and Flash 5, now share a unified interface that makes it easier for new users to get their bearings in each application and for experienced users to employ skills across programs. Tool bars and inspector panels work identically in all the programs, and with customizable keyboard shortcuts, you can tune the programs so they all work as you want them to.

You have long had the ability to launch Fireworks from within Dreamweaver to edit images. But the new Roundtrip Table Editing tool turns tables and their contents into objects that can be swapped back and forth between the two programs, with edits preserved. You can create a table in Fireworks, for example, adding rollovers to slices and frames; bring that table into Dreamweaver to edit it or to add JavaScript code; and then bounce the table back to Fireworks for graphics changes, all without harming the code in either program.—TOM NEGRINO



Flashy Text The headline on this page isn't a GIF; it's vector text saved as a Flash movie (in this case, it's a movie that doesn't move).

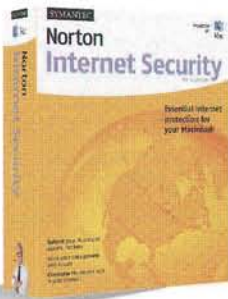


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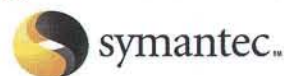
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Power Mac G4s

466MHz and 533MHz Models Add CD-RW,
Subtract Audio-Input Port

POWER MAC G4/466

Rating: ★★☆☆

Pros: Good performance; attractive price; includes 128MB of RAM and CD-RW drive.

Cons: No audio-in port.

List price: \$1,699

Company: Apple Computer,
800/692-7753, www.apple.com

POWER MAC G4/533

Rating: ★★☆☆

Pros: Excellent performance; great 3-D-graphics capabilities; includes CD-RW drive.

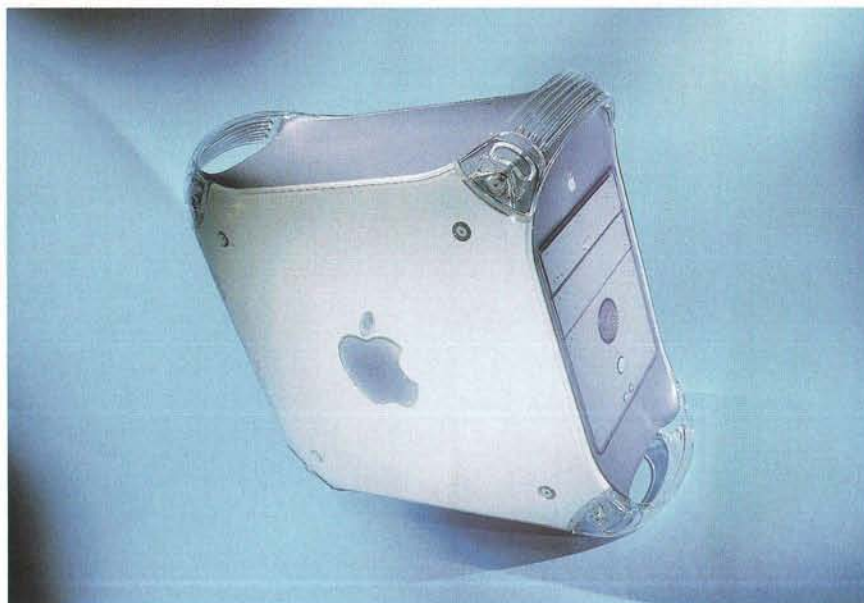
Cons: No audio-in port.

List price: \$2,199

Company: Apple Computer,
800/692-7753, www.apple.com

MACWORLD'S BUYING ADVICE:

With these new models, Apple has given business, professional, and multimedia users just about everything they could want in a reasonably priced Power Mac—solid performance, 128MB of RAM, an onboard CD-RW drive, and on the 533MHz model, blazing 3-D graphics. All that's missing from these admirable Macs is an audio-in port.



ARNOLD TIOSEJO

Past generations of desktop Macs had many perceived deficiencies, but the latest crop of Power Macs should put many criticisms to rest. These Macs include CD-RW drives and an additional PCI slot (bringing the total to four), and the top three models—those with 533MHz, 667MHz, and 733MHz G4 processors—pack one of the most powerful graphics processors around, nVidia's 32MB GeForce2 MX. Less-obvious changes include a faster system bus and sprightlier PCI throughput.

We tested the first of the new Power Mac G4s to ship—the two less-expensive models, the \$1,699 466MHz and \$2,199 533MHz machines—and we're pleased to report that in nearly every respect they're finer and more-capable Macs than their predecessors.

Dynamic Desktops

Apple includes a generous 128MB of RAM in each of these models, plus a 30GB (5,400-rpm) hard drive in the 466MHz Mac and a 40GB (7,200-rpm) drive in the 533MHz machine. Both Power Macs demonstrate that Apple's system-level improvements pay off in better performance. Thanks in large part to its faster system bus (see "G4s Break the 500MHz Barrier"), for example, the new 466MHz model matched the Speedmark score of our test system—a previous-generation 500MHz Power Mac G4. And in our Adobe Photoshop Gaussian Blur and Unsharp Mask tests, the 466MHz machine lagged only a second behind the older G4.

The inclusion of a 4x AGP slot also offers rewards. Although both



the new 466MHz G4 and the old 500MHz G4 carry an ATI Rage 128 graphics chip set, the older G4 has a 2x AGP slot; the new model squeezed an additional five frames per second out of Quake III Arena.

As we expected, the 533MHz Power Mac (also available in a dual-processor configuration, from Apple's online store only, for an additional \$300) easily outmatched both the new 466MHz and the older 500MHz models. Although its 6-percent performance gain in our Speedmark tests was less than earth-shattering, we were mightily impressed when the 533MHz Power Mac clipped five seconds off the 500MHz Mac's Photoshop scores. Somewhat surprisingly, the previous-generation Power Mac G4 fared better in our MP3 encoding test, taking 1 minute and 50 seconds to encode a test file that was 9 minutes and 25 seconds long; the new Power Macs took two full minutes. (We can probably attribute this difference to slower read times in the new CD-RW drives.)

The most dramatic difference in the 533MHz Power Mac is in 3-D-graphics performance. In our Quake III tests, the ATI Rage 128 card in both the 466MHz and the older 500MHz machines yielded a perfectly acceptable 46 frames per second. The 533MHz model's nVidia GeForce2 MX card produced nearly half again as many frames—an impressive 66 frames per second. Little wonder that nVidia's graphics cards are revered by PC gamers. Unfortunately, the nVidia card's 2-D performance doesn't match its 3-D capabilities: in our scrolling tests—and particularly the PDF test—the ATI card ran noticeably faster.

Power to Burn

Prior to the release of the latest Power Macs, CEO Steve Jobs com-

mented that Apple had missed the boat when it failed to include CD-rewritable drives in its computers. The company has rectified the situation by including CD-RW drives in each Power Mac (sacrificing DVD drives in all but the most expensive model in the process). And to be sure that these drives are actually useful, Apple offers Disc Burner, a free application-extension combination for creating data and music CDs using the new Macs' built-in CD-RW drives. The combination of Disc Burner and a CD-RW drive is a winner, making tools such as Adaptec's Toast seem clumsy in comparison. With Disc Burner you simply insert a blank CD-R or CD-RW disc into the Mac's CD-RW drive, choose a format for the disc, and drag and drop files onto the CD's icon. When you're ready to write that data to the CD, just select Burn CD from the Finder's Special menu, and Disc Burner burns and verifies the disc.

Disc Burner becomes even more capable when coupled with iTunes, Apple's free MP3 encoder/player utility. From within iTunes you can extract tracks from an audio CD, add those tracks to a playlist, and then burn those tracks to a CD-R

using Disc Burner. The two programs can just as easily turn MP3 files into CD-player-compatible AIFF sound files and burn those to disc. At press time, neither Disc Burner nor iTunes was bundled with the Power Mac G4s, but you can download both for free from Apple's Web site (www.apple.com).

Something's Missing

Considering Apple's current push to paint the Mac as a "digital hub" for multimedia devices, it's odd that the company stripped the audio-in port from these new G4s. Granted, newly introduced USB and FireWire audio-input devices and sound cards make it possible to bring in audio by alternate means, but none of these are bundled with the Mac. Surely those who have invested in audio and speech-recognition programs that rely on sound input will be disappointed to learn that they must purchase additional equipment to use them with these new Macs.

We anxiously await more-powerful (and more-expensive) Power Mac G4s, which are due to ship sometime this spring. In the meantime, the 466MHz and 533MHz models should meet the needs of anyone seeking a robust, expandable Mac.—CHRISTOPHER BREEN

G4s Break the 500MHz Barrier



Reference system in <i>italics</i> . Best results in bold . — Longer is better. — Shorter is better.	SPEEDMARK 2.1	QUAKE III ARENA	SOUNDJAM 2.5.2	ADOBE PHOTOSHOP 5.5	
	Overall Score	Normal	MP3 Encode	Gaussian Blur	Unsharp Mask
Apple Power Mac G4/466	157	46	2:00	22	21
Apple Power Mac G4/533	168	66	2:00	16	15
Apple Power Mac G4/500	157	41	1:50	21	20
	Better ▶	Better ▶	◀ Better	◀ Better	◀ Better

Speedmark scores are relative to those of an iMac 350MHz (1999), which is assigned a score of 100. Quake scores are in frames per second. SoundJam scores are in minutes:seconds. Photoshop scores are in seconds. We tested each system with Mac OS 9.1 installed, 128MB of RAM, a default system disk cache, and virtual memory enabled. We set displays to 1,024 by 768 pixels and 24-bit color. We tested MP3 encoding with an audio-CD track that was 9 minutes and 25 seconds long and converted it using a default setting of 128Kbps in SoundJam. For more information on Speedmark, visit www.macworld.com/speedmark.—Macworld Lab testing by James Galbraith and Jason Cox

Professional Monitors

Large Displays Run the Gamut
in Quality and Price

MACWORLD'S BUYING ADVICE:

If you're on a budget, the Brilliance 201P, from Philips Electronics, is the monitor to buy: its low price and excellent quality make it an obvious choice. Although it has no bells and whistles (such as a USB hub or dual input), most people won't need them. If you do need dual input, go for the NEC Technologies MultiSync FP1350x, which shows very high quality overall and costs less than \$1,000.



From left: the NEC Technologies MultiSync FP1350x, the LaCie electron22blue II, and the Philips Electronics Brilliance 201P

SCOTT PETERSON

Monitor prices have plummeted recently, and those in the 21-inch class (with viewable areas measuring between 19 and 20 inches diagonally) are available for less than \$1,000—even some targeting professional Adobe Photoshop users and layout artists. Macworld Lab tested nine monitors in the 21-inch class that cost less than \$2,000, and found that you don't necessarily have to choose a more expensive display to get the best quality.

There are three monitor-tube technologies: the truly flat Sony FD Trinitron; its derivative, the Mitsubishi DiamondTron NF; and the older shadow mask, which has a slightly bulbous surface. We found that a monitor's tube technology didn't greatly influence its display quality, although we prefer the flat tubes

because they provide a more uniform image. Quality differences are ultimately due to the electronic controls that regulate a display; we found considerable variation in output quality among monitors using the same tube.

The Search for Quality

Of course, overall image quality—which includes clarity, sharpness, color saturation, and uniformity—is the most important factor when choosing a monitor. Color fidelity is also highly important, and crucial for professionals. Although it's impossible for a monitor to display exactly the colors you see in print (light-emitting displays always seem a bit brighter than reflective inks on paper), a good monitor should be able to come very close.

After using Apple's built-in color-management tools to tune all the



monitors to their best output, we used two sets of tests to determine which had the best display. The first set included two tests: we compared the output of each monitor—in its uncalibrated setting—to a printed color target image; and we displayed a text-heavy Microsoft Excel spreadsheet on each monitor to compare sharpness and uniformity. We found that the NEC MultiSync FP1350x, the Philips Brilliance 201P, and the Sony Multiscan G520 performed the best in these tests.

For the second set of tests, we used a ColorVision Monitor Spyder with OptiCal software (\$399; 800/554-8688, www.colorvisionus.com) to calibrate each monitor, and we then repeated both of the previous tests and added a third: comparing each monitor's CMYK samples to those of a Pantone swatch book. In all three tests, the Philips, the NEC, and the Princeton EO 2005 did very well. After we calibrated the LaCie electron22blue II using its optional \$599 BlueEye system, it

Screen Test					
<ul style="list-style-type: none"> ●●● Excellent ●● Acceptable ● Poor 	SOFTWARE-CALIBRATED		HARDWARE-CALIBRATED		
	Text	Test-Image Match	Text	Test-Image Match	Color-Swatch Match
	CTX Pro PureFlat PR1400F	●●	●●	●●●	●●
	Eizo Nanao FlexScan F980	●●	●●	●●	●●
	iiyama Vision Master Pro 510	●	●●●	●	●●
	LaCie electron22blue II	●●	●●	●●●	●●●
	NEC MultiSync FP1350x	●●●	●●●	●●●	●●●
	Philips Brilliance 201P	●●●	●●●	●●	●●●
	Princeton EO 2005	●●●	●●	●●●	●●●
	Sony Multiscan G520	●●●	●●●	●●	●●●
	ViewSonic P220f	●	●	●●	●●

Using our Lab color-test target image and Adobe Photoshop 5.5, we tested each monitor at its factory default settings for color fidelity. We tested for text legibility and sharpness using Microsoft Excel. We calibrated the monitors using ColorVision's Monitor Spyder and OptiCal software (except for the LaCie monitor, which comes with its own calibrator) and repeated the tests. We compared output to Pantone color swatches. We compiled subjective results from the comments of a three-person jury. The test platform was a 500MHz Power Mac G4 running OS 9.0.4, with 128MB of RAM, a standard ATI Rage Pro128 graphics card, and 16MB VRAM.—Macworld Lab testing by Gil Loyola

displayed excellent results across the board.

Gauging the Goodies

The CTX Pro PureFlat PR1400F, the Eizo Nanao FlexScan F980, and the LaCie electron22blue II all come with built-in USB hubs: at least one uplink port to connect to the Mac and several downlink ports to connect to peripherals.

Another feature that's common in the more-expensive monitors is dual input, which lets two computers (or another source, such as a TV or VCR) share a monitor; a switch lets you change from one source to the other. Of the models in our group, only the iiyama Vision Master Pro 510, the ViewSonic P220f, and the Philips don't offer dual input.—GALEN GRUMAN


Professional Monitors Compared							
COMPANY	PRODUCT	RATING	PRICE	SIZE*	TUBE TECHNOLOGY	EXTRA FEATURES	CONTACT
CTX	Pro PureFlat PR1400F	●●●	\$880	19.8	FD Trinitron (0.24mm)	Dual input, BNC connectors, 4-port USB hub	800/888-2012, www.ctxintl.com
Eizo Nanao Technologies	FlexScan F980	●●●½	\$1,899	19.6	Shadow mask (0.23mm)	Dual input, BNC connectors, 5-port USB hub	800/800-5202, www.eizo.com
iiyama	Vision Master Pro 510	●●●	\$981	20.0	DiamondTron NF (0.25mm at center to 0.27mm at corners)	BNC connectors	800/394-4335, www.iiyama.com
LaCie	electron22blue II	●●●	\$1,179	20.0	DiamondTron NF (0.25mm at center to 0.27mm at corners)	Dual input, 5-port USB hub, optional calibrator (\$599)	503/844-4502, www.lacie.com
NEC Technologies	MultiSync FP1350x	●●●½	\$999	20.0	DiamondTron NF (0.25mm at center to 0.27mm at corners)	Dual input, DVI-I connector	800/632-4662, www.nectech.com
Philips Electronics	Brilliance 201P	●●●½	\$899	20.0	FD Trinitron (0.24mm)	BNC connectors	877/835-1838, www.philips.com
Princeton	EO 2005	●●●	\$849	20.0	Shadow mask (0.25mm)	Dual input, BNC connectors	800/747-6249, www.princetongraphics.com
Sony Electronics	Multiscan G520	●●●	\$1,200	19.8	FD Trinitron (0.24mm)	Dual input	800/222-7669, www.ita.sel.sony.com
ViewSonic	P220f	●●●½	\$915	20.0	DiamondTron NF (0.25mm at center to 0.27mm at corners)	BNC connectors	800/843-6784, www.viewsonic.com

* Viewable size (diagonal in inches)

Font Reserve Server 1.0

Font-Management Tool Lends Immediate,
Flexible Power to Large Workgroups

FONT RESERVE SERVER 1.0

Rating: 

Pros: Powerful, easy-to-use interface for both administrator and client.

Cons: Requires a Windows NT server; expensive.

List price: \$1,200; each client connection to the server, \$130

Company: Diamondsoft, 415/381-3303, www.fontreserve.com

MACWORLD'S BUYING ADVICE:

Font Reserve Server 1.0 is as easy to use as it is powerful in both client and administrator capacities. There is almost no learning curve beyond a cursory reading of the manual. After working with this font server once, workgroups tied to an intranet or server architecture will find it difficult to imagine what life was like without it.

At first glance, Font Reserve Server 1.0 looks very similar to plain old Font Reserve (*Reviews*, April 2000). But this version is made especially for service bureaus and ad agencies that work with numerous font-reliant projects, and it's an entirely different animal. Font Reserve Server gives administrators complete control over a workgroup's font access, with only a minimal learning curve.

Have No Fear

Font Reserve Server's only drawback is its need for a Windows NT server. But strange as it may seem, this is actually a Mac-only product. After installing the Windows portion, which includes fonts in Mac format, you can leave the server in a closet—the client and administration software resides on the Mac.

Conflict-Free Zone

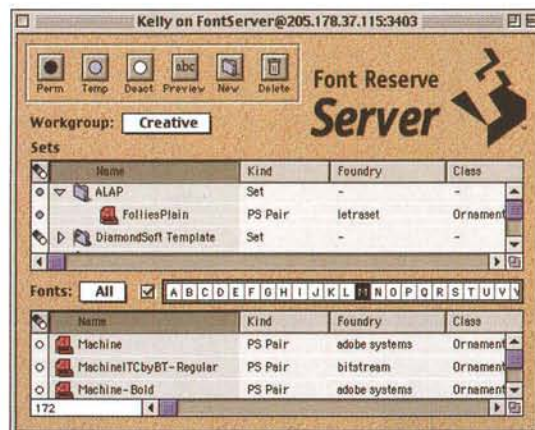
The client software includes all the sorting, searching, and informational features that users of the regular Font Reserve enjoy, depending on the level of access granted by the administrator. Each client connects to the server via a program called Font Reserve Proxy, and because it's an application rather than an extension, it can be used with any number of start-up sets.

The Font Reserve Server browser handles all the

administration. Its clean interface with clearly labeled icons makes it very easy to learn. The administrator can set up workgroups and sets within workgroups, or import privileges from one user or group to another.

The administrator can also change any client's access privileges in real time. We tested this on a remote server 400 miles distant via DSL, and there was no lag between making changes and seeing them applied.

But the most compelling and outstanding aspect of Font Reserve Server is its font-caching ability. Even though a user may be accessing a font from the remote server, if that connection is cut off, the activated fonts remain usable on the client's system. Closing the specific document—or the application, for that matter—will not delete access to the font sets needed, as long as the client's computer doesn't need a restart.—ANDREW SHALAT



No New Tricks to Learn The Font Reserve Server browser has the familiar interface of Font Reserve's single-client edition.



GL1

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- Movie, Photo (still) and Frame modes
- Direction-Accurate Microphone
- Analog line-in



XL1

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- 3CCD with exceptional, low-light performance
 - 16x SuperRange Optical Image Stabilizer™ lens standard
- Accepts EOS EF 35mm camera lenses with optional EF adapter
 - Full manual control

Plug and edit.



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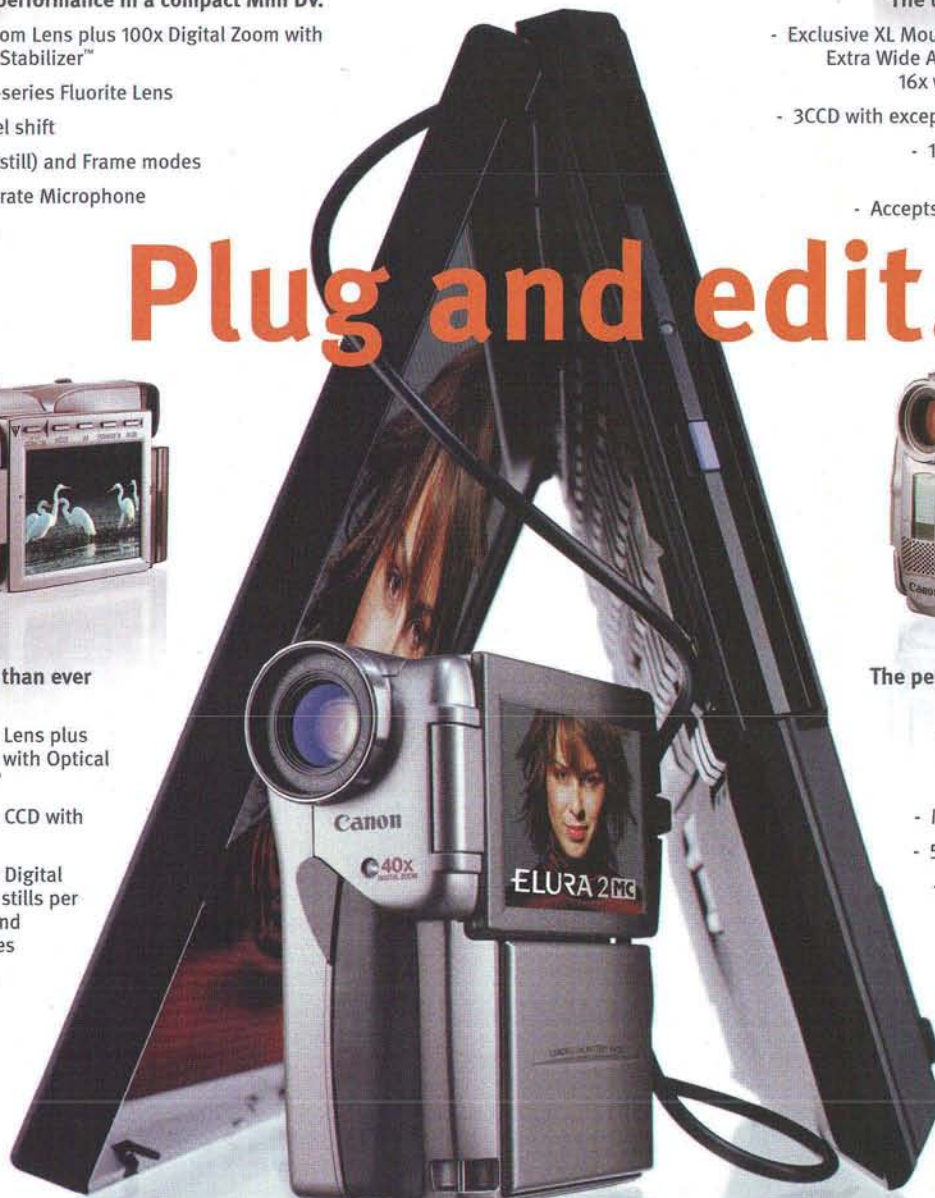
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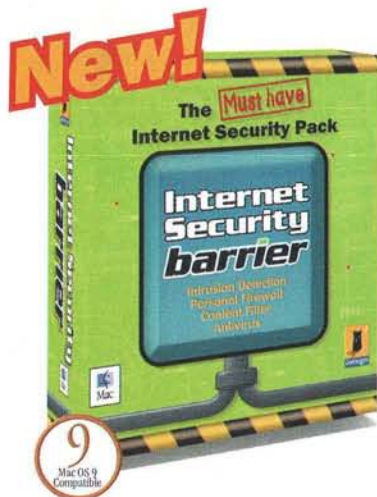
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Internet Security Barrier 1.0

Intego presents the complete Internet Security Pack for your Mac. Easy to install, easy to use, and always up-to-date, thanks to NetUpdate, which ensures automatic or manual updates over the Internet. Internet Security Barrier contains:

NetBarrier 2.0

NetBarrier's personal firewall monitors incoming and outgoing data, blocking all vandal attacks and attempts to break into your Mac for full protection. A customized mode allows you to create your own defense rules. It analyzes data leaving your computer and prevents unauthorized exporting of private data. It helps maintain your privacy, giving you control over cookies, blocking ad banners, and blocking spam before you download it. It also helps cover your tracks, by refusing to give out certain personal data.

VirusBarrier 1.5

VirusBarrier protects your Mac from all known viruses, including Word and Excel macro viruses. It checks files you receive by e-mail, download from the Internet or copy from CD-Roms or other media. Its turbo mode makes virus scanning lightning fast.

ContentBarrier 1.0

ContentBarrier sets up a protective wall around your computer. Its pre-defined categories let you choose what you don't want your children to see, and you can also create your own custom categories. Inappropriate web sites are blocked, shielding your children from things they are too young for. ContentBarrier blocks adult web sites, sites with subjects not fit for children, and even blocks chats when predatory language is used. It blocks all offensive content coming from the Internet.

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Rewind 1.1

Worthwhile Data-Recovery Utility Has Rough Edges

Power On Software's Rewind—a utility that promises to undo changes you've made to your Mac by sending the state of your Mac's hard drive "back in time"—should serve as an object lesson on how not to release a piece of software. Rewind generated a deafening buzz at July 2000's Macworld Expo, and normally skeptical reviewers positively gushed about the utility after seeing a demo. And then Power On released Rewind 1.0, a program so buggy that a subsequent update appeared to be designed only to disable Rewind's most unstable components. The latest version, 1.1, delivers much of what the program promises, but some problems remain.

Back in Time

The theory behind Rewind is easy to grasp. It tracks changes you make to your hard drive—software installations, changes to the System Folder, and the trashing of items, among other things—and stores data related to these actions in a hidden database. If you do something you're unhappy with—you download a virus, for example—you can command Rewind to return your Mac to the state it was in before you initiated that action.

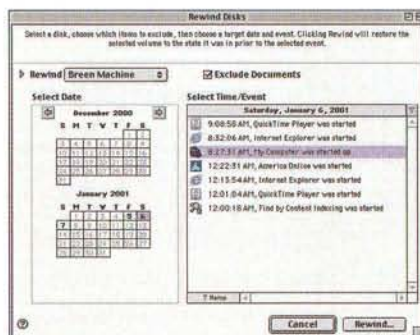
If you've done something so destructive that you can't boot from your hard drive, Rewind lets you start your Mac from Emergency Disk—a hidden, user-configurable partition that contains a System Folder and diagnostic utilities—by holding down

the R key at start-up. Rewind can also recover files you've trashed.

Mixed Results

In tests where we rewound individual files and recovered trashed files, Rewind performed admirably. And it fared reasonably well when recovering entire disks, but Rewind's performance wasn't perfect. For example, after installing two troubleshooting utilities on a PowerBook G3, we rewound the disk to the previous day. Rewind failed to remove the folders for the recently installed utilities, as well as one or two files inside the folders. However, reversing the process—sending the drive forward to a time after we installed the utilities—brought the files back as originally installed.

After a drive is rewound, Rewind's database temporarily eats up a lot of disk space; your Mac must be inactive for ten minutes before Rewind will purge older files in its database and restore that disk space. It would be helpful if Rewind included a Purge Now command.—CHRISTOPHER BREEN



Bring It Back Rewind 1.1 allows you to return your Mac to a previous state—that is, when the program functions properly.

REWIND 1.1

Rating: ★★½

Pros: Individual-file recovery works well; Emergency Disk is a troubleshooting boon.

Cons: Rewinding of entire disks is sometimes incomplete; temporarily consumes a lot of disk space.

List price: \$100; download, \$90

Company: Power On Software, 800/344-9160, www.poweronsw.com

MACWORLD'S BUYING ADVICE:

Rewind 1.1 is a worthwhile addition to your data-recovery tool kit, and it's likely to improve with each update. Enough quirks remain, however, that we'll use it in combination with other utilities—such as Dantz's Retrospect and Alsoft's DiskWarrior—as our frontline defense against disk corruption, accidental data loss, and viruses.

Tax-Preparation Software

Quicken TurboTax, Kiplinger TaxCut

Ease Form-Filing Chores

KIPLINGER TAXCUT HOME AND BUSINESS

Rating: ★★★★★½

Pros: Good, easy-to-use tax advice; help when and where you need it.

Cons: None.

List price: \$50; Deluxe edition, \$20

Company: H&R Block Financial, 818/779-7223, www.taxcut.com

QUICKEN TURBOTAX HOME AND BUSINESS

Rating: ★★★★★

Pros: Can import tax information directly from some employers and investment companies; thorough return preparation.

Cons: Not as much help as TaxCut; help is less targeted; more expensive than TaxCut; no video tutorial.

List price: \$65; Deluxe edition, \$50

Company: Intuit, 800/446-8848, www.turbotax.com

MACWORLD'S BUYING ADVICE:

Both Kiplinger TaxCut Home and Business and Quicken TurboTax Home and Business have become so refined over the years that neither is a bad choice. However, because Kiplinger TaxCut has the tax-help and interface edge—and costs less, to boot—it's the package we recommend.

This year, the contenders in the tax-preparation software arena are more competitive than ever. In one corner is the revamped, refined, and rechristened Quicken TurboTax Home and Business (formerly known as MacIntax), from Intuit. In the other is Kiplinger TaxCut Home and Business, from financial heavyweight H&R Block. Both programs let you import data from Quicken or other financial software, both now have one-click updating commands for downloading the latest tax information and forms, and both let you file electronically or print returns for mailing. But when it comes to guiding you through obtuse federal tax code, the less-expensive TaxCut once again comes out ahead: it has better, more-accessible help, and it's easier to use.

Look and Help

The packages have similar interfaces. In each, the main screen asks a series of questions that guide you through the tax-preparation process; a column on the screen's right-hand side contains questions linked to answers concerning the topic on the main screen. The software makes calculations and enters results in the appropriate tax form, which is shown in a scrolling window at the bottom of the screen.

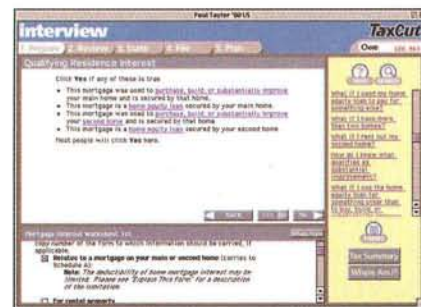
Despite these similarities, it takes a little longer to learn to use TurboTax's interface features than TaxCut's. TaxCut also offers more and better help, and it brings the help to you rather than making you search for it.

TaxCut generally gives you more FAQs than TurboTax, and its questionnaire is sprinkled with useful videos that offer advice about tax law. The Help button in both programs brings up a window with tips and facts, but TaxCut presents information that's more pertinent to the screen at hand.

Auto Entry

TurboTax does have a handy feature that will be helpful for some people. Automated Tax Return can import data via the Internet from selected employers and roughly half a dozen investment companies. Although this may save you some typing, it's probably inapplicable to most users.

TaxCut has some features of greater benefit to more users. For instance, the program displays an icon next to the currently selected field. Clicking on it lets you add an itemized list to a figure or mark a field entry as tentative. TaxCut asks you later if you want to finalize tentative items.—JOHN RIZZO



Nontaxing Interface Kiplinger TaxCut's hyperlinks and Help button offer abundant assistance with the tax code.



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attached, compressed and "saved as"...**

If only you could open it!



Don't Get Caught With a File You Can't Open.

Oh the things that happen to files before they reach your Mac. They're compressed to save space. They're created in versions of software you might not have. They may even originate on (gasp) a Windows® machine. And unless you have MacLinkPlus Deluxe 12.0, your odds of opening those files fall somewhere between "slim" and "none". Because only MacLinkPlus can translate and open documents no matter where they come from. So you don't have to worry about file types, document formats, or high-falutin' stuff like Binhex encoding. All you do is double-click. And the file opens. What could be easier?

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FastTrack Schedule 7.0

Project Scheduler Mends Simplicity with High-End Precision Planning Features

FASTTRACK SCHEDULE 7.0

Rating: ★★★★★

Pros: Quick scheduling and updating in Calendar view; improved scheduling accuracy; simple interface.

Cons: Not appropriate for very large or multiple, interconnected projects.

List price: \$299

Company: AEC Software, 800/346-9413, www.aecsoft.com

MACWORLD'S BUYING ADVICE:

FastTrack Schedule 7.0 blends the sophisticated project-management functions professionals need with an intuitive interface that makes building and presenting schedules simple enough for everyday users. FastTrack Schedule is the best choice for planning and monitoring all but the most complex projects.

Most of us have to do some form of task scheduling as part of our daily work, but we don't necessarily want to learn planning theory, a prerequisite for using traditional project-management software. FastTrack Schedule 7.0's simple interface will have even novices organizing project tasks into graphical timelines within minutes of launching the program, while experienced managers will appreciate the increased precision of its scheduling functions.

Demystifying Project Management

Even if you've never used a project manager before, the new Calendar view will have you producing high-quality schedule charts in no time—just click on the calendar to add tasks or revise their duration. Like its predecessor (*Reviews*, June 1999), version 7.0 helps you depict tasks graphically by placing bars and milestones on a timeline, but new dockable palettes make it even easier to connect tasks and change bar styles.

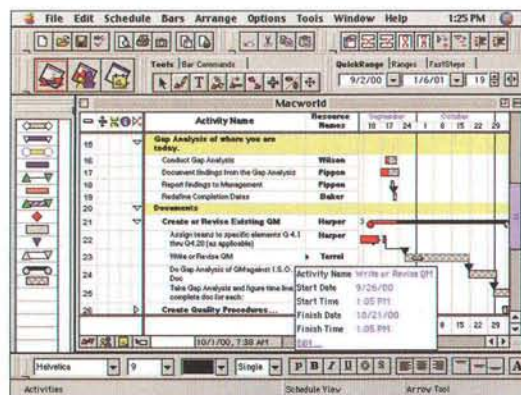
FastTrack Schedule 7.0 also offers more-efficient ways to build complex plans, as well as finer control over schedules. As you outline projects, you can easily assign multiple resources and view task details using a single data-entry form. The new Editable Links option determines the amount of time during which tasks can overlap or that must elapse

before the next activity begins. Once you link tasks, FastTrack highlights the critical path for you.

Multiple Ways to Collaborate

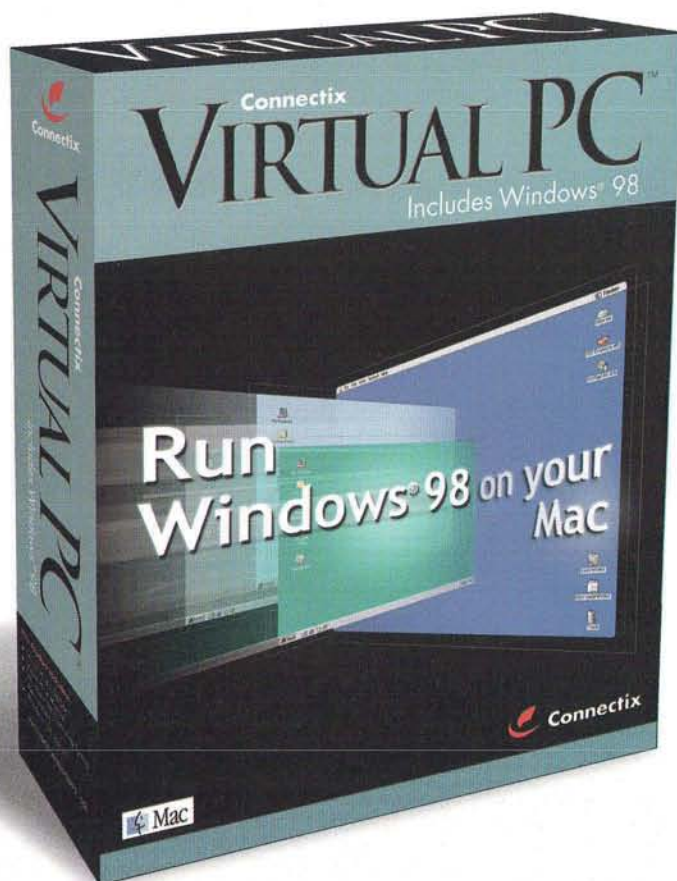
FastTrack Schedule 7.0 bests its predecessors with improved support for collaboration. It can read the PC version's files; exchange data with Microsoft Project 2000; and when used with the \$99 FastTrack Schedule 7.0 for Palm OS, synchronize schedules with Palm organizers.

It can also convert schedules to HTML pages, but that's where its Web capabilities stop. If your clients and remote employees need to access and update real-time project data, elite.com's Web-based project-management application, Worksolv (\$19.95 per month), may be a good alternative. Though it lacks high-end resource-management functions, the service is easy to use and promotes better communication and collaboration.—MIKE HECK



A Project Manager's Delight FastTrack Schedule 7.0's improved palettes and task-linking features help you outline projects and determine task workflow.

A More Powerful Virtual PC



Now, up to twice as fast!

Virtual PC 4 puts a fast, powerful PC inside your G3 or G4 Mac, enabling you to run PC applications, access PC networks, share files with PC-based colleagues, and use PC-only services and applications. The latest version of this award-winning software from Connectix runs PC operating systems up to twice as fast as previous versions, so it's easier than ever for Mac users to stay compatible with the PC world.

What's new in Virtual PC 4? Improved features in Virtual PC 4 include faster performance, larger disk images, easier to use interface and help system, and the ability to run multiple PC operating systems simultaneously. Run PC software faster and better than ever with Virtual PC from Connectix. Go to www.connectix.com for more information or to purchase Virtual PC.

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DNS SERVER GAINS REMOTE ADMINISTRATION, IMPROVED INTERFACE

QuickDNS Pro 3.0

Rating:  1/2

Pros: Remote administration; syntax checking; load balancing; excellent user interface; fast.

Cons: Import feature does not always accept standard record formats.

List price: \$349

Company: Men & Mice, 800/242-3364, www.menandmice.com

Macworld's Buying Advice:

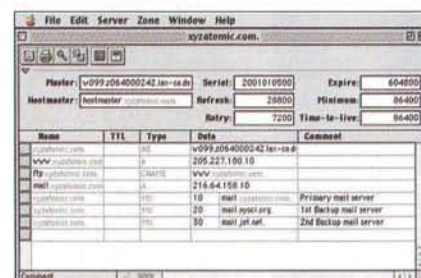
Compared with administering DNS on Unix and Windows platforms, using QuickDNS Pro is a dream. It's the best choice for Mac-based DNS serving.

Administering a DNS server can be a painful chore, unless you're using Men & Mice's QuickDNS Pro. Version 3.0 adds many useful features that make this the most powerful tool available for DNS serving and administration on either a Mac or a PC.

You can now administer the server application remotely from any Mac, even via the Internet. In fact, you can remotely administer any number of QuickDNS Pro servers simultaneously. This release supports the new SRV and LOC record types, which let you identify a server's attributes and geographic location. It will allow you to sort resource records to keep them better organized.

QuickDNS Pro's load-balancing and dynamic-failover features let you

easily set up redundant Web servers. And QuickDNS Pro is fast—our tests show it to be faster than Windows-based DNS servers and on a par with Unix servers. The only nit to pick is that the import feature, which is intended to let you migrate DNS records from other platforms to the Mac, rejects some standardized DNS-record formats.—MEL BECKMAN



Safety Check QuickDNS Pro 3.0's interface offers better syntax checking and safety features.

DiskWarrior® has than



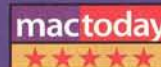
1999 Macworld Editors' Choice Awards Winner, Utility Software. "DiskWarrior is an excellent ax to add to your disk-repair and -maintenance arsenal. DiskWarrior's ease of use, speed, and new method of fixing disk problems make it a powerful disk-maintenance product."



1999 MacUser Awards Best Utility/Enabling Software. "For providing a new, easier to use, safer, and often more successful alternative to more bloated recovery applications, the judges felt DiskWarrior deserved top billing..."



1999 Apple Design Awards Most Innovative Product, Runner-up Best New Product



5 Out Of 5 Stars "Every Mac on the planet can benefit from DiskWarrior!"

Repairs disk problems such as disks that won't mount, files you
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QUICKTIME VR TOOL GAINS SLICK FEATURES BUT RETAINS ROUGH EDGES

The VR Worx 2.0

QuickTime VR-development tools have evolved very slowly, but the pace is picking up. The VR Worx 2.0, from VR Toolbox, is a major upgrade that merges what were three separate programs into one program that creates panoramic movies, rotatable object movies, and multiple-scene panoramas (see "Making VR").



Making VR The VR Worx 2.0 walks you through making QuickTime VR movies.

A big flaw of The VR Worx's previous version is fixed in 2.0: the panorama maker no longer stores source images within the project file, and this results in smaller files that are easier to manage. Stitching is faster, and there's a slick new feature for adding visual transitions between two panoramas. You can also superimpose an object movie over a static image or a panorama.

But there are rough edges. I received frequent "out of memory" messages, even after boosting the program's allocation to more than 100MB. And Apple's circa-1998 QuickTime VR Authoring Studio still delivers superior results for panoramas containing tricky transitions between light and dark areas.—JIM HEID

Rating: ★★½

Pros: Slick production features; supports AppleScript.

Cons: Memory errors; high-contrast scenes can render poorly; manuals are awkwardly written.

List price: \$300

Company: VR Toolbox, 877/878-6657, www.vrtoolbox.com

Macworld's Buying Advice:

The VR Worx lacks the elegant design of Apple's aging QuickTime VR Authoring Studio, and its rendering quality can be inferior to that of Apple's program. But The VR Worx is less expensive and provides an unmatched range of authoring features, particularly for Web delivery. Although there is room for improvement, The VR Worx is currently the top VR-production tool.

won more top awards any disk utility ever.



Mac Today
1998 Editors'
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Awards

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"DiskWarrior belongs in the arsenal
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MacHome 8th Annual
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Best Utility. "Got lots of votes for
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PhotoWebber 1.0

Rating: ★★★★★

Pros: Fast; easy to use; well-implemented frames and rollovers; extensible beyond Photoshop.

Cons: No graphics-compression preview; Photoshop 6 text not fully supported.

List price: \$299; download, \$249

Company: Media Lab, 800/282-5361, www.medialab.com

Macworld's Buying Advice:

PhotoWebber 1.0.4 makes converting Photoshop files into Web pages amazingly easy. Although it's no substitute for the power of Macromedia Dreamweaver or Adobe GoLive, PhotoWebber's results should satisfy the pickiest of Photoshop designers while letting them remain blissfully ignorant of the mysteries of HTML.

Many Web sites are conceived in Adobe Photoshop and stay there for most of their gestation. But if they're ever to be born, those pages have to survive the treacherous process of being taken apart and reassembled in HTML. One shortcut for converting your layered file from Photoshop into a Web page is Media Lab's PhotoWebber 1.0.4. This utility slices up the graphics and writes the HTML code to piece everything back together perfectly in your browser.

PhotoWebber handles the Photoshop-to-Web conversion very intelligently. For instance, it samples the color from the background layer in Photoshop and makes that the Web page's background color. You can easily add frames and drag



Beethoven Rollover PhotoWebber's browser preview lets you ensure that your Photoshop layers work properly as rollovers and pop-ups.

them around for precise positioning, and Photoshop's layer-naming convention allows PhotoWebber to create rollovers and pop-ups for interactive buttons. PhotoWebber's only serious omission is its lack of a way to preview the compression of graphics.—GALEN FOTT

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UTILITY HELPS KEEP
YOUR MAC CURRENT

UpdateAgent 8.1



Rating: ★★½

Pros: Retrieves software updaters automatically; easy to use.

Cons: Doesn't recognize dropped Internet connections.

List price: Varies from \$10 to \$250, depending on package.

Company: Insider Software, 800/700-6340, www.insidersoftware.com

Macworld's Buying Advice:

You can find software updaters yourself, but one-stop shopping makes UpdateAgent 8.1 worth its price.

Even if you have only a modest software collection, finding and downloading updaters from the Web can take hours. Insider Software's UpdateAgent scans your hard drive and checks your commercial software, shareware, and system files against its online database. Within minutes, the program displays a list of available updaters; pick the ones you want, and UpdateAgent downloads them to your computer, ready for you to install. A one-time, one-Mac update costs \$10; a one-year subscription, \$50. For \$90, you can purchase an edition for stand-alone and networked Macs that includes 1.3GB of updaters on CD-ROM; \$250 buys four CD-ROM editions, released quarterly.—FRANKLIN N. TESSLER

DJ SOFTWARE BRINGS
LIFE TO YOUR PARTY

GrooveMaker 2.0



Rating: ★★

Pros: Easy to use; wide range of sound samples.

Cons: Poor tech support; problems importing from CDs.

List price: \$80

Company: IK Multimedia, 818/707-7222, www.groovemaker.com

Macworld's Buying Advice:

It won't turn you into Fatboy Slim, but GrooveMaker 2.0 will bring the big beat to your party. Though it's probably inadequate for professionals, it's very good DJ software for its price.

Mixing beats takes talent, practice, and hard work—or the right software. GrooveMaker 2.0 steps you through the process of creating ultracool dance music, or you can use its virtual DJ, which mixes tracks on its own.

GrooveMaker comes with two CDs loaded with bass, drum, percussion, vocals, effects, and synth loops. You can also sample CDs, most types of audio files, and your own voice or instruments to create new mixes.

There's no tech-support phone number, however, so if you have any problems, you have to e-mail the company for help. And the program frequently balks when importing loops directly from CDs, forcing you to first transfer the files from the CD to your hard drive.—MATHEW HONAN



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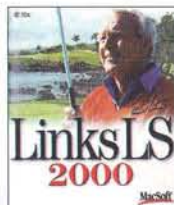


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124 on card or www.macworld.com/getinfo

GRAPHICS KEEP GOLF
SIM UP TO PAR

Links LS 2000



Rating: ★★★★★

Pros: Outstanding graphics; easy network-play setup; wide variety of gaming options.

Cons: Sound glitches; user's guide is difficult to navigate.

List price: \$50

Company: MacSoft, 800/229-2714, www.wizworks.com/macsoft

Macworld's Buying Advice:

Links LS 2000's beautifully rendered courses, overall quality, and realistic play are sure to win over duffers of every skill level.

Links LS is at the top of the leader board of golf-simulation games—no product better captures what it's like to be on the course. Links LS 2000 upholds this standard by featuring lush graphics, a slew of options, and realistic play. Links LS 2000 features six courses, including the Old Course at St. Andrew's. Gaming options include everything from conventional stroke play to novelty games, and setting up network play is easier than sinking a 5-foot putt.

The game ran smoothly, for the most part. Sound occasionally cut out at the end of holes, but this was a minor glitch. Aside from that—and the poorly organized user's guide—Links LS 2000 comes up a clear winner.—PHILIP MICHAELS

LET YOUR MOUSE BE
YOUR TOUR GUIDE

Explore Parliament



Rating: ★★★★★

Pros: Realistic images; excellent interface; comprehensive information.

Cons: Video segments were missing at some junctures.

List price: \$30

Company: The Armchair Travel Company, 888/618-4106, www.armchair-travel.com

Macworld's Buying Advice:

Explore Parliament gets you close enough to enjoy the antiques but keeps you far enough away that you won't get sent to the Tower of London.

Explore Parliament offers a virtual tour of the esteemed halls of British government. And unlike real tours of the Houses of Parliament, this tour affords you opportunities to stop and "touch" things that interest you: move your mouse over a bust, sculpture, or painting to identify it, and click for narration or a movie. You can take the whole tour, or click on hot spots on a map to go to your favorite rooms.

Narrated segments cover everything from the art on the walls to the ceilings overhead. The CD also has information on parliamentary proceedings. And related artifacts are linked together, so if you stop to enjoy a bust of King Henry VIII, for example, you see links to items such as portraits of Anne Boleyn.—BRETT LARSON

ONLINE REVIEWS

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LINK

Visor modules

- ★★ Eyemodule
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- ★★★★½ CH Products Flight Sim Yoke USB
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- ★★★★ Gravis Destroyer Xtreme
- ★★ Macally iStick
- ★★★★ Saitek Cyborg 3D Gold
- ★★★★½ Saitek ST220

Applied-mathematics software

- ★★★★½ Mathematica 4.1

CompactFlash readers

- ★★★★ Microtech ZiO for CompactFlash
- ★★★★½ Pyro Flash Reader

File-browsing utility

- ★★ ACDSee 1.5.1

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- ★★★★ Wheel of Fortune

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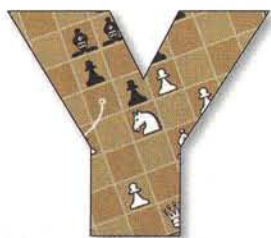
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The Game Room



our cards, letters, and e-mail messages are heartily appreciated, everyone. All of them. Honestly. Even the one negative missive that assaulted me for being, and I quote, "a lackey of the hated oppressors of the proletariat, destined to be one of the first thrown against the wall when the workers break the chains of the industrial bourgeoisie and the Revolution finally arrives."

I mean, what can I say to this? I'd probably start by saying that communism as an attractive image to adopt when cruising bars went out with hubcap-size chest medallions and Aqua Velva, so if you think that beating up a (somewhat) beloved industry figure with your copy of *Karl Marx for Dummies* is going to help you score, you're sadly mistaken.

Besides, have you looked at my record, sir? In the past few months, my columns have dealt with a collection of games retailing for about \$190, a pair of \$350 graphics cards, and a collection of traditional games (half of which come from one publisher). So you see, this claim that I'm doing nothing but urging the working class to channel their funds into buying consumer products instead of underwriting the Revolution is just ludicrous.

Now, as always, Andy Ihnatko is the Friend of the Small Developer. And some great games are coming out as shareware. Z Sculpt's *Retro* (\$19; www.zsculpt.com) seems to have shoved most of the commercial multilevel games off my PowerBook lately. It's a rarely seen sort of game: the combination puzzle and shooter. There's a very nicely written little sci-fi back story of invading monsters and immediate peril to peace-loving humans everywhere, but fundamentally the concept is this: Via a God's-eye view of the world, you pilot a spaceship through increasingly complicated terrain laid with traps; opposing ships

to shoot at; and areas where There's Just One Way to Get Through, which you'll discover only through cunning and lateral thinking.

It's sort of like *Tomb Raider* without the breasts.

Retro is the name but it ain't the *modus operandi*. All of the artwork is shaded in 3-D, and catchy but unobtrusive music and background game sprites pep things up.

Oh, dear Lord, that reminds me that I have to write about a straight puzzle game. Puzzles are swell and all, but how many different flavors of Tetris and Minesweeper can one man be expected to play in one lifetime? Have I sinned that greatly?

And yet I react to these things the same way everyone else does. As with crack cocaine or fresh-roasted pecans, you scoff but sample, and then you get hooked. Factor Software's *MacPipes* (\$5; www.factor-software.com) is the freshly updated version of a classic. You've got a supply of assorted pipe fittings and a supply of water that's about to come rushing in. You use the fittings as they become available, to lay the longest and most complicated continuous pipeline possible before someone twists the valve.

Play it long enough, and you'll see pipe fittings whenever you close your eyes; you'll know intuitively to put that left-elbow pipe in a spot where you can exploit a cross-

continues

over joint later on. I actually feel myself becoming more mentally skillful with each passing hour of game play; movie studios should license software like this and ship it on every Adam Sandler DVD.

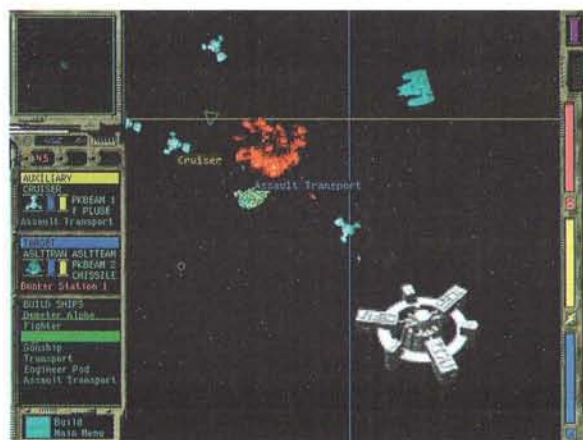
In the world of Mac games, Ambrosia Software is your Ed Harris or Gene Hackman: whatever it's doing is worth looking at. The fact that the company has spent so many years releasing so many games with hypercommercial production and game play makes me think that either the shareware market is far more lucrative than anyone has surmised or these developers' trust funds kicked in 'round 1987.

And Ares (\$25; www.ambrosiasw.com) just might be Ambrosia's best game, ever. Here's yet another chance to save Earth, but this time the game premise is actually interesting and enhances play. Humans discover an alien beacon emanating from space and dispatch a crew to explore its source. It turns out that the signal was sent from a friendly race as a warning that Earth is about to be conquered by its enemies; said race is puzzled that more of Earth's population wasn't evacuated. Through hardware and strategic advice from that race and others you meet along your way, you must battle your way home to rescue Earth.

You'll fight individual ships and fleets, and you'll attempt to conquer whole planets; you'll want to steer clear of some folks completely, and sometimes the best plan is the one you make up as you go along. Ares is impressive because it's a virtuoso performance that draws on all of the best impulses of war-and-empire strategy and fast-paced combat sim; you triumph through twitchy maneuvering and shooting, but only solid planning and tactics will actually win these sorties. It's a great game because it doesn't make the mistake of assuming that the player is as familiar or as enthralled with it all as the



Retro Spectacle Forget the story—Z Sculpt's Retro is a cool combination of puzzles and shooting.



Mars Attacks Ambrosia's Ares lets you realize your plans for world domination—but on a solar-system-size scale.

game developers. So there's a constant supply of advice (well-integrated into the story) and a couple of tutorial levels.

You'll need them. Like real warfare, the game's action is overwhelming. But even when you lose, you're driven to play Ares again.

Klink's Tanks Of Terror 1.1 (\$15; www.klinksoftware.com) can't offer Pokémon, Warner Brothers characters, or Mario and Luigi, but it brings all of the dopey, nothing-even-remotely-macho-about-this fun of console ultraviolent mini-go-cart racing to the Mac.

Tanks sticks to the mainstays of the genre. Animated and modeled in 3-D (thanks to OpenGL), the game lets you compete in stage after stage (the "after stage" part comes after you've forked over the 15 bucks) of racing around tracks as you accelerate past, shoot, and blow up your fellow drivers.

It's not perfect, but version 1.1 is a big improvement over 1.0. The whole appeal of go-cart-style games is the reduction of the driving challenge to simple steering and braking. Version 1.1 loosens the rules of physics enough that you're not always careening off the track and worrying that you've drunk too much Coke to be able to handle the steering.

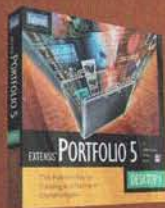
Now, let's see: if you add it all up, it looks as though I've just advocated going out and downloading about 25MB of shareware, all published by small outfits. I've definitely put to rest any idea that I'm here only to support the Big Software Oligarchy.

As for supporting the makers of DSL switching and routing equipment—look, you can't fill the gas tank of a 2001 Lexus with ethics, you know. **m**

Somewhat beloved industry figure ANDY IHNATKO will get back to fighting The Man as soon as he gets past this next level. This is his final *The Game Room* column; watch for him on our back page next month, and look for a new face behind the controls in *The Game Room*.



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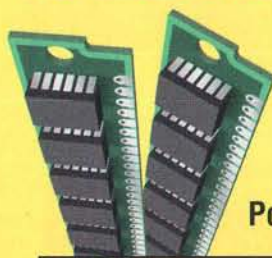
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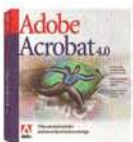
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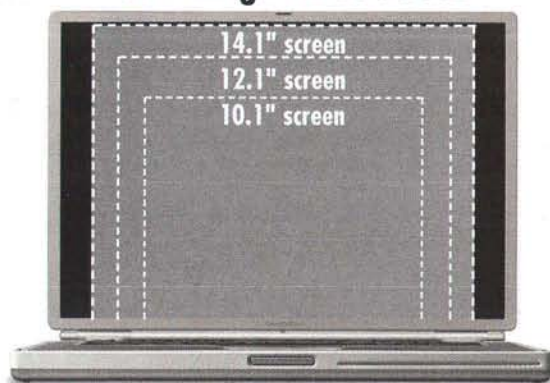
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FireWire	2 Ports	1 Port	1 Port
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	iMac	iMac DV	iMac DV+	iMac SE
Processor	350MHz	400MHz	450MHz	500MHz
Hard Drive	7GB	10GB	20GB	30GB
RAM	64MB	64MB	64MB	128MB
Optical Drive	CD	CD	DVD	DVD
FireWire	No	2 Ports	2 Ports	2 Ports
iMovie 2	No	Yes	Yes	Yes
Mac Zone Instant Rebate	No	No	\$200	\$200
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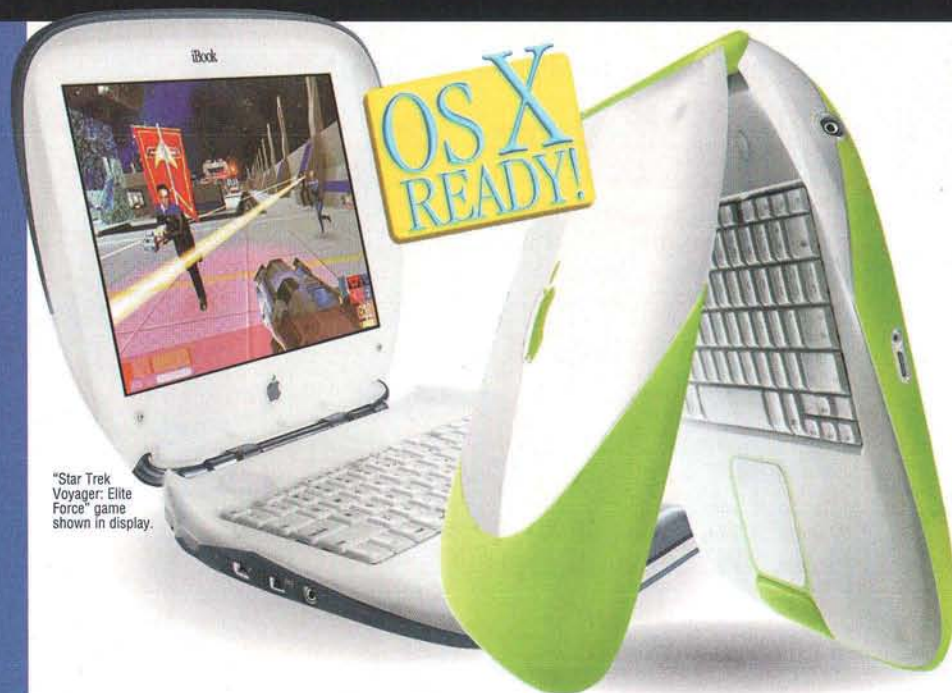
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iBook iBook SE

	iBook	iBook SE
Processor	366MHz	466MHz
Hard Drive	10GB	10GB
RAM	64MB	64MB
On-chip cache	256K	256K
Optical Drive	CD	DVD
FireWire	1 Port	1 Port
AirPort Ready	Yes	Yes
Ethernet	10/100BT	10/100BT
Modem	56K	56K

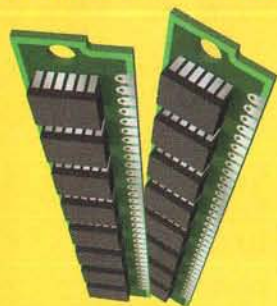
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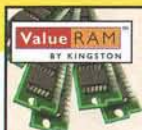
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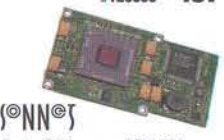
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display with 1152 x 768-pixels in millions of colors because the new PowerBook G4 has a slot-loading DVD-ROM drive for playback of DVD-Video and DVD-ROM discs.

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Revolutionary design

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- Slot-loading DVD-ROM drive for playback of DVD-Video, DVD-ROM, DVD-RAM and CD-ROM

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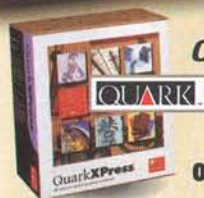
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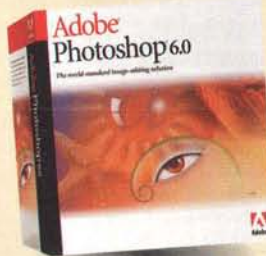
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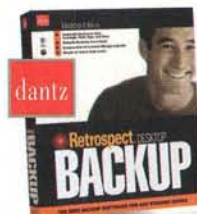
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But you'll probably find yourself using that hard disk capacity for something that's all the rage with iMac users: making Desktop Movies with iMovie 2.

Make your own movies!

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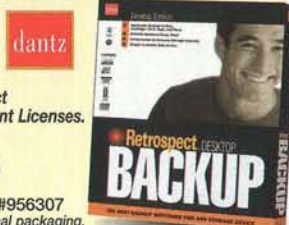
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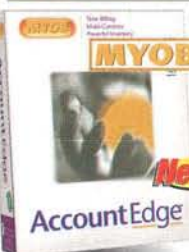
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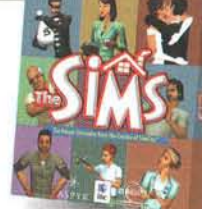
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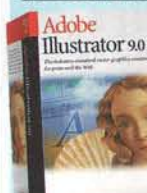
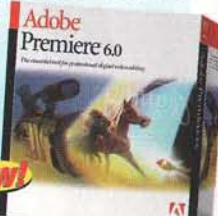
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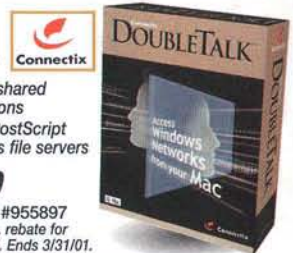
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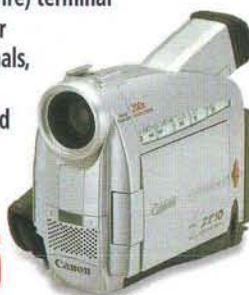


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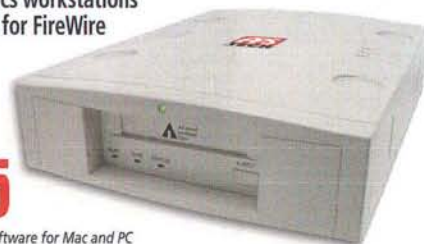
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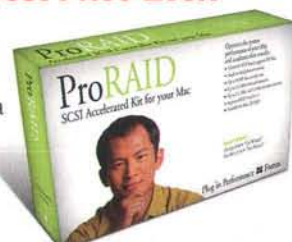
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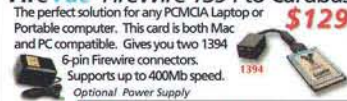
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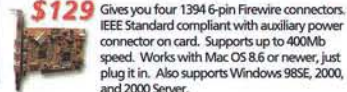
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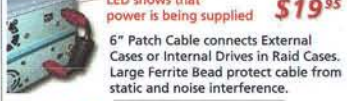
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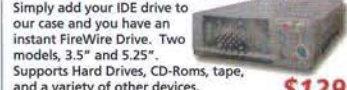
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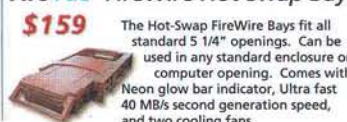
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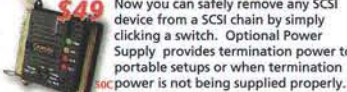
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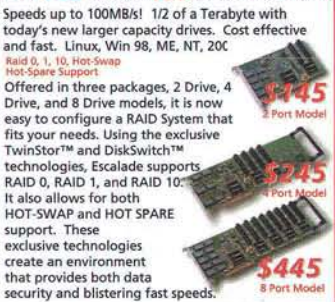


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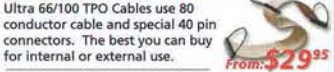


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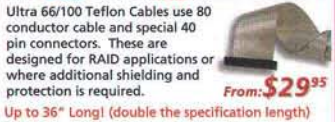
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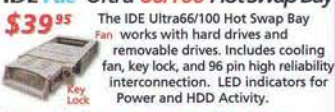
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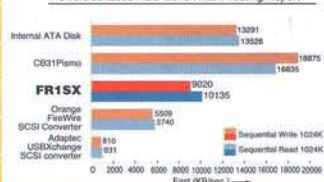
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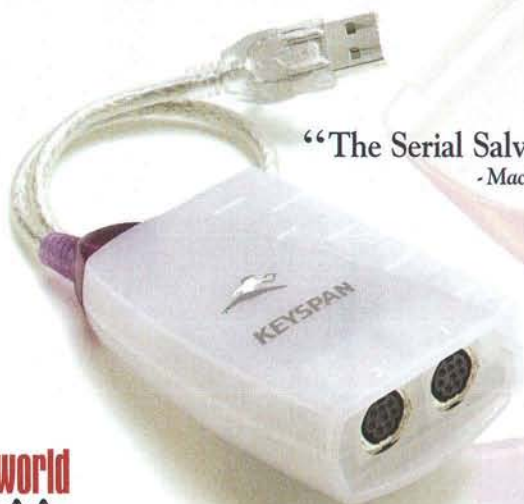
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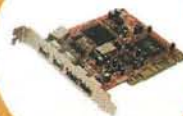
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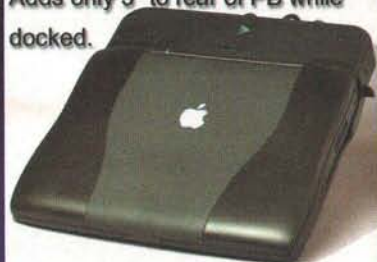
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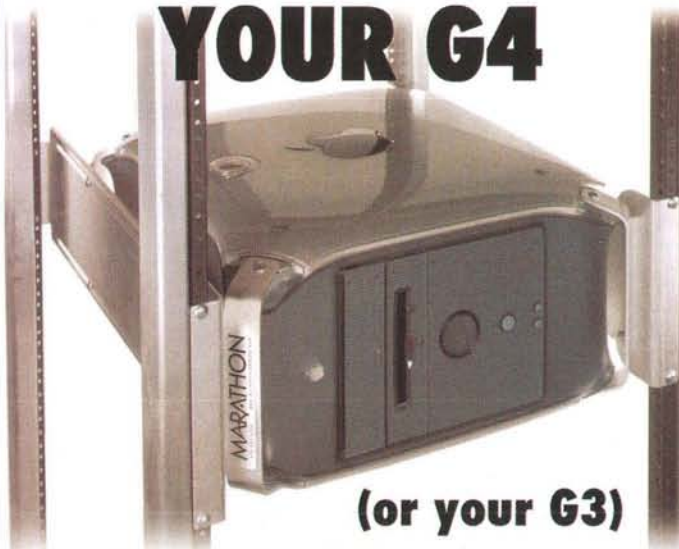
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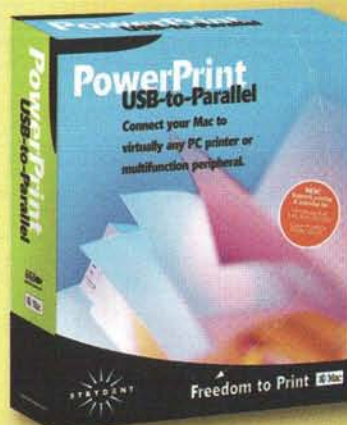
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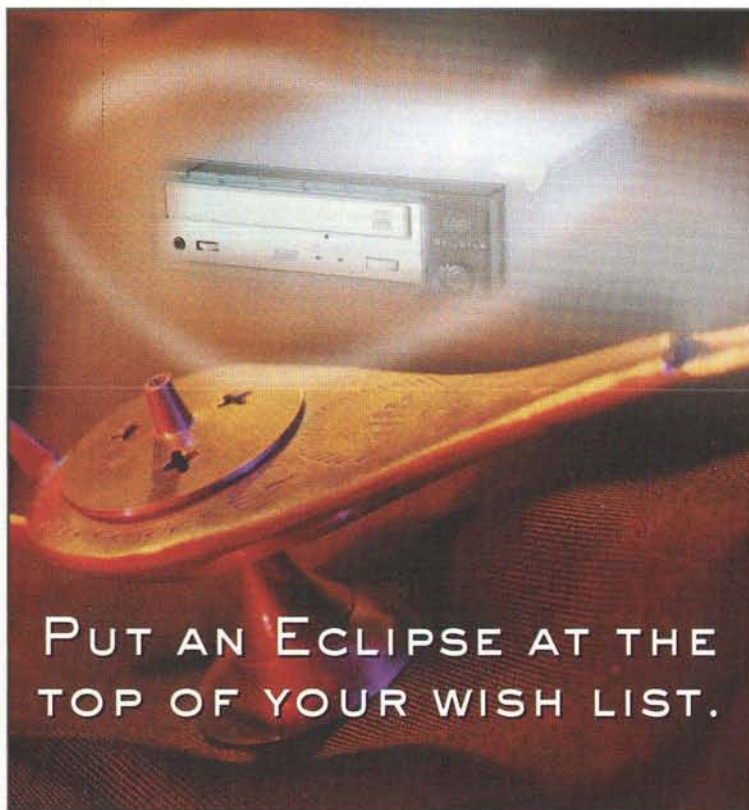
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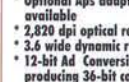
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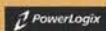
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to save \$\$\$. In fact, her roommates are about to kick her out because she can't pay her rent."

The guy, upset, contacts a roommate, Jenny23: "Don't kick her out; let me help tide her over. What's the rent?" It's \$700. He sends it along.

This continues for three months, but then he mentions his generosity online. "Wait," writes another guy. "You're paying her rent? I'm paying her rent!" Another guy: "No, I'm paying her rent!" Of course, it's all a scam; SkiBunny, BigBertha, and Jenny23 are all the same person—a guy—who's suckered three different people into sending checks for \$700 each month.

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Thanks to the millions he got as
his severance pay,
For a year's stay—
All the Apple chairmen, where do
they all come from?
All the former chairmen, oh,
where have they all gone? . . .*
- To the tune of "Memory," from *Cats*:
*Memory! It says, "Not enough
memory!"*

Introducing SimApple

It's the latest in the series of popular Sim games! You're the CEO of America's most loved and hated computer

company. Your challenge: manage the company without running it into the ground.

But be careful—every action has an effect. Make the company profitable? You'll have to fire people and kill off projects that could have turned into home runs. Offer computers in translucent colors? Endure five years of translucent radios, toasters, and sport-utility vehicles. Make the Mac a resounding smash hit, putting \$4 billion in the bank? Endure months of death sentences from the media during the tech-stock crash of 2000.

Where Have All the Manuals Gone?

Microsoft Office 2001 comes in a plastic case that looks disturbingly like a toilet seat and barely has room for a drink coaster, let alone a manual. Why don't software companies include user guides any more? In the quantities Microsoft needs, they must cost, what, \$1 per box?

Most likely, they're too damned lazy. And besides, "all the other software companies are doing it."

(Note to self: Scrap idea as a column. Start line of books instead. Need a name. *Missing Documentation* series, *Lost Manual* series? . . .)

Microsoft Life

A visual column: no words, just an illustration of the Mac program called Life—the menus and dialog boxes of modern existence.

Under the Job menu, the options are Lucrative And Boring, Creative And Unprofitable, Entrepreneur, and None. Under the Shelter menu are Mortgaged For Life, Shoebox Apartment, and Live With Parents.

Then there's the Love menu, which contains Single By Choice, Hold Out For Soul Mate, and Compromise While You Still Can, as well as the "Sorry, a social error has occurred" message, which gives you

three options: Apologize, Restart, and Move Away.

Lies, Damn Lies, and Statistics

This whole "Apple is dead" in the current media is great! Dig up old columns from 1996, the ones that mocked the silliness of tech reporters who declared Apple was dying at the first sign of a hangnail, and submit them to *Macworld* without changing a word—especially July 1996:

"From the articles we all read early this year, you would have thought that Apple had already burst like a soap bubble and completely vanished. 'Apple has no future,' decided *Time* magazine. 'The fall of Apple,' gloated *Business Week*. Never mind that a sales slump has hit *all* computer companies. . . .

"Even if you believe the Apple empire can evaporate overnight, you'd have a hard time imagining that the Mac will disappear. Macintosh users—56 million of us—buy \$12 billion in computers and \$1 billion in software each year (says the SPA); critical industries like publishing, science, movies, education, and music rely almost completely on Macs. This is not a computer platform that can be canceled like a TV show."

Make fun of Chicken Little newspaper tech columnists and how they miss the importance of Apple, which standardized the mouse, CD-ROM, icons, menus, fonts, PostScript printing, the Trash Can, and digital video. Point out that without clever technologies debuting on the Mac, these guys could look forward to writing about bleak, uninspired, Windows-based glop for the rest of their lives.

Note to self: Never become one of them. **m**

DAVID POGUE (www.davidpogue.com) is the creator of the *Missing Manual* series (www.missingmanual.com). Semper Mac!

First, the bad news: this is my last monthly column for *Macworld*. If that development comes as a shock to you, imagine how it feels to me—this is the only regular job I've ever had. The brilliant editors and copy editors I've known during my 13 years at this magazine were the teachers who unwittingly prepared me for my new job: weekly personal-technology columnist for the *New York Times*.

I've just heard that *Macworld* columnist Andy Ihnatko will be my successor in this space, starting next month. That's great news—you're in for a hilarious read. But it's not always easy to come up with column ideas that satisfy the requirements of both entertainment and commentary. I thought it'd be nice to give Andy a running start.

So as a parting gesture, I'm opening the pages of my secret journal, the cherished notebook I keep tucked beneath my old Mac IIcx's motherboard. This booklet contains notes to myself—sketches, snippets, and drafts of upcoming columns.

Introducing People-World Magazine

Note from publisher:

"We computers have been dropped, dismantled, and benchmarked—not to mention abused by toddlers who mistake our drive slots for Gummi Bear dens. Well, now it's our turn: a magazine by Macs, for Macs. Each month, we'll review the people who use us."

Lead review: "Homer Corliss Jr. is a Seattle teenager with greasy palms and an unhealthy fascination with Lara Croft. Rating: 2.5 thumbs." **Feature article:** "Venting rage is important for any microprocessor-based device; if you keep it all bottled up inside for too long, you'll wind up having a motherboard attack. In this article, we'll examine ways to express your anger—through random modem disconnects, Type 3 errors, and system lockups."

Macho Cheese

What is it with computer nerds and the terminology they invent? "Surfing the Net"—gimme a break. How is slumping in a chair waiting for Web pages to download *surfing*?

CodeWarrior software for programmers, RAM, hard disks, mounting volumes—the psychosexual terminology of computing: all attempts at using rugged, extreme-

sport, masculine terminology to compensate for the lack of actual physical activity in their lives.

Products We'd Like to See

MealMaker Pro, Connectix TimeDoubler, VirtualWife (great for both sexes!), Microsoft Sleep, Quicken for Traffic, IRS Explorer, the Apple iWatch (requires Sense of Humor 2.0 or later).

Females, He-Males, and E-mails

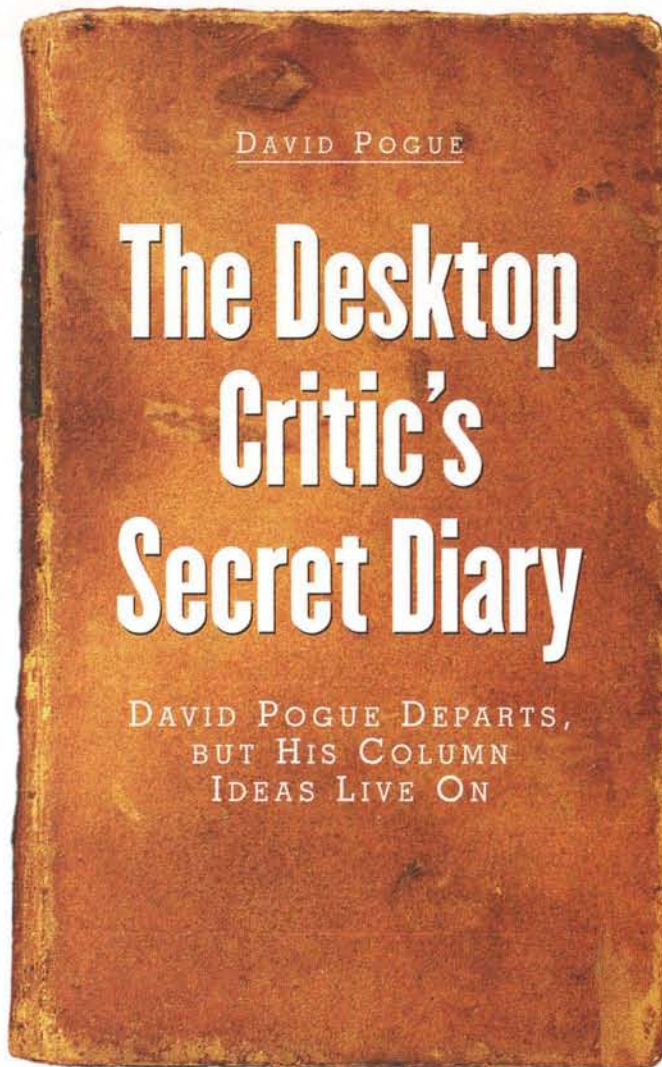
True stories from the bizarre new social world of e-mail correspondence:

She was Lyon3: clever, witty, and the belle of the AOL chat rooms. I fell for her like a ton of bricks. But then she showed up on the doorstep of my apartment one day, out of the blue—bloodshot eyes, spiky orange hair, pierced everywhere. "Hi, I'm

Lyon3!" she exclaimed. I've got a week off from my drug rehab program, so I thought I'd come to New York to see my girlfriend. But she's not home, and you're the only other person I know in New York. Can I crash with you for a while?"

Or the SkiBunny story: She charmed everyone in the chat rooms; she was gorgeous, at least according to the GIF she sent around. One guy was especially fond of her—until she disappeared. He asked in the chat rooms: "Where's SkiBunny?" E-mail response from BigBertha: "She's fighting leukemia, had to cancel her AOL account

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SUE, WILL YOU MURDER ME?



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**<site
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